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MACKENZIE VALLEY PIPELINE INQUIRY

IN THE MATTER OF THE APPLICATIONS BY EACH OF  
(a) CANADIAN ARCTIC GAS PIPELINE LIMITED FOR A  
RIGHT-OF-WAY THAT MIGHT BE GRANTED ACROSS  
CROWN LANDS WITHIN THE YUKON TERRITORY AND  
THE NORTHWEST TERRITORIES, and  
(b) FOOTHILLS PIPE LINES LTD. FOR A RIGHT-OF-WAY  
THAT MIGHT BE GRANTED ACROSS CROWN LANDS  
WITHIN THE NORTHWEST TERRITORIES  
FOR THE PURPOSE OF A PROPOSED MACKENZIE VALLEY PIPELINE

and

IN THE MATTER OF THE SOCIAL, ENVIRONMENTAL AND  
ECONOMIC IMPACT REGIONALLY OF THE CONSTRUCTION,  
OPERATION AND SUBSEQUENT ABANDONMENT OF THE ABOVE  
PROPOSED PIPELINE

(Before the Honourable Mr. Justice Berger, Commissioner)

Yellowknife, N.W.T.

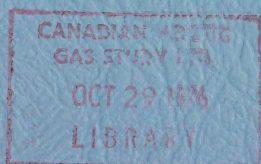
October 15, 1976.

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PROCEEDINGS AT INQUIRY

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Volume 199







APPEARANCES:

1 Mr. Ian G. Scott, Q.C.,  
 2 Mr. Stephen T. Goudge,  
 3 Mr. Alick Ryder, and  
 4 Mr. Ian Roland, for Mackenzie Valley Pipeline  
 Inquiry;  
 5 Mr. Pierre Genest, Q.C.,  
 6 Mr. Jack Marshall,  
 7 Mr. Darryl Carter,  
 8 Mr. J.T. Steeves, and for Canadian Arctic Gas Pipe-  
 9 line Limited;  
 10 Mr. Gerry Ziskrout,  
 11 Mr. Reginald Gibbs, Q.C.,  
 12 Mr. Alan Hollingworth,  
 13 Mr. John W. Lutes, and for Foothills Pipe Lines Ltd.;  
 14 Mr. Ian MacLachlan,  
 15 Mr. Russell Anthony,  
 16 Prof. Alastair Lucas and  
 17 Mr. Garth Evans, for Canadian Arctic Resources  
 Committee;  
 18 Mr. Glen W. Bell and  
 19 Mr. Gerry Sutton, for Northwest Territories  
 Indian Brotherhood, and  
 20 Metis Association of the  
 21 Northwest Territories;  
 22 Mr. John Bayly and  
 23 Miss Lesley Lane, for Inuit Tapirisat of Canada,  
 24 and The Committee for  
 25 Original Peoples Entitle-  
 26 ment;  
 27 Mr. Ron Veale and  
 28 Mr. Allen Lueck, for The Council for the Yukon  
 29 Indians;  
 30 Mr. Carson Templeton, for Environment Protection  
 Board;  
 Mr. David H. Searle, Q.C.  
 for Northwest Territories  
 Chamber of Commerce;  
 Mr. Murray Sigler and for The Association of Municipi-  
 palities;  
 Mr. David Reesor,  
 Mr. John Ballem, Q.C., for Producer Companies (Imperial,  
 Shell & Gulf);  
 Mrs. Joanne MacQuarrie, for Mental Health Association  
 of the Northwest Territor-  
 ies.





I N D E XPage

WITNESSES FOR C.O.P.E.: October 15, 1976.

Grahame BEAKHUST

Gilbert M. ZEMANSKY

- In Chief

- Cross-Examination by Mrs. MacQuarrie

- Cross-Examination by Mr. Scott

31497

31588

31599

## EXHIBITS:

- 880 List of Goods & Services Foothills Intends  
to Purchase in the N.W.T. 31497
- 881 Qualifications & Evidence of G. Beakhust 31497
- 882 Qualifications & Evidence of G. Zemansky 31497
- 883 "Land Regulation in Canadian North" by  
Usher & Beakhust 31497
- 884 "Inuit Land Use & Occupancy Project" by  
DIAND 31497
- 885 "Proposal for Native Legal Worker Program  
& Community Legal Centre in Western Arctic"  
by COPE 31497
- 886 Report by JFWAT, September 1976 31611

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Yellowknife, N.W.T.

October 15, 1976.

(PROCEEDINGS RESUMED PURSUANT TO ADJOURNMENT)

MR. SCOTT: Mr. Commissioner, today we have to deal with Mr. Hollingworth's motion and a number of other matters. Perhaps I should call Mr. Steeves first and senior counsel present on the last day.

MR. STEEVES: I want to speak, as I intended, to the motion to stand final argument for a period equivalent to the delay in delivery by Inquiry staff.

THE COMMISSIONER: Would you repeat that, Mr. Steeves?

MR. STEEVES: Right up here, you mean? Sorry, Mr. Commissioner, I want to speak now to Mr. Hollingworth's motion, and I want to tell you what the position of Arctic Gas is.

First of all, Arctic Gas neither solicits nor requires the assistance of Mr. Scott in preparation of its argument. I'm quite serious when I say that, and I think, Mr. Commissioner, you understand what I'm saying.

Arctic Gas recognizes the spirit and the intention of the arrangements that were made which provided for Mr. Scott's argument to be circulated amongst all the other parties, as much in advance of the argument as possible. Arctic Gas intends, and has always intended to circulate an outline of its argument a week before November 15th and



1 is prepared to make its submissions to you on  
2 November 15th, and nothing that's happened particularly  
3 in the last few days is going to alter that.

4 Insofar as whether or not  
5 there ought to be an adjournment, I respectfully submit  
6 to you that no prejudice has been made out as a result  
7 of what has happened and what Mr. Scott told us about  
8 the other day, and therefore there's no reason for  
9 delaying proceedings.

10 I oppose Mr. Hollingworth's  
11 motion.

12 MR. SCOTT: Mr. Bayly, have  
13 you anything to say on this position?

14 MR. BAYLY: Mr. Commissioner,  
15 I don't want to see any delay in the time of final  
16 argument. I would like to say, though, what the  
17 change of schedule will mean in our plans and it may  
18 or may not be significant.

19 We plan to have our final  
20 argument ready for the COPE Board of Directors by  
21 a week from today, and to take it to a Board meeting  
22 of that organization over next weekend, and then come  
23 back and revise it according to the instructions we  
24 get from the COPE Board of Directors. At that time  
25 we should be about to receive Mr. Scott's terms and  
26 conditions. We will not have either the time or  
27 the finances to have an additional COPE meeting to  
28 look at those terms and conditions.

29 So you will have my comments  
30 and my best judgment of what my client's comments are





1 on the Commission's terms and conditions, but you  
2 won't have my client's on November 15th because that's  
3 impossible. That may not matter, but that is the  
4 situation.

5 MR. SCOTT: Mr. Sigler, do  
6 you know what we're talking about?

7 MR. SIGLER: Yes. The  
8 Association of Municipalities, sir, takes the position  
9 that we want to see the Inquiry end and your report  
10 be prepared and submitted to the government at the  
11 earliest possible date, and for that reason we want  
12 to go ahead for argument the week of November 15th.

13 MR. SCOTT: Mr. Hollingworth?

14 MR. HOLLINGWORTH: Sir, when  
15 I started this issue off yesterday I didn't do so  
16 lightly. I reviewed back in my mind the reasons, as  
17 I saw them, for Mr. Scott's being asked by you  
18 sometime ago to produce his terms and conditions at  
19 the earliest possible time, and as far as I could  
20 ascertain, sir, it was for the review by the parties,  
21 the other parties to this Inquiry; and I refer you,  
22 sir, to an exchange that you and Mr. Gibbs had on  
23 October 5th this last week. At that time Mr. Gibbs  
24 on page 30163 was reciting from what Mr. Scott had  
25 said on September 24th at page 29733, and Mr. Scott  
26 said, among other things,

27 "There will be available to all -- these will  
28 be available to all participants on Monday  
29 October 18th. There will then be three weeks  
30 in which participants will have an opportunity





1 to review Commission counsel's recommendations  
2 and to prepare their own. At the end of the  
3 third week, each participant who wishes to  
4 make oral submissions will file with each of  
5 the other participants a summary of the terms  
6 and conditions that he proposes to advance  
7 before you in oral argument. There will then  
8 be one week when all counsel and participants  
9 will have an opportunity to review those  
10 summaries of terms and recommendations and  
11 all submissions will begin in Yellowknife  
12 on November 15th."

13 Now, sir, that was certainly  
14 my understanding of the reason why Mr. Scott's terms  
15 and conditions were being made available. IN fact, sir,  
16 I believe that you underlined that when later on  
17 on page 30178, starting on page 30177 you said this.  
18 You were talking about the normal practice with Royal  
19 Commissions and then you said:

20 "But in this instance to be fair to all of  
21 you, a year ago, and you will remember my  
22 direction a year ago to Commission counsel,  
23 I said so that you and the staff under Dr.  
24 Fyles' direction to assist Commission counsel  
25 and has assisted him for a year and a half,  
26 so that you, Mr. Scott, and your staff do not  
27 have the privity of the Commissioner when the  
28 evidence is over, without the pipeline companies,  
29 the native organizations, the environmental  
30 groups, the municipalities and the Chambers of



Commerce ever knowing what advice you are  
giving me, I am directing you to disclose  
as soon as the evidence is all in in detail  
the advice you propose to give me as the  
Commissioner of this Inquiry."

Then you said, sir,

"That's why it is being done, so that you can  
all stand up and you can challenge it or you  
can seek to modify it, or you can stand on it  
and say, 'I agree.'"





1 And then on the next page sir,  
2 on page 30179, you go on and say "when Mr. Scott dis-  
3 tributes that 3 or 400 page document, it will represent  
4 the work of Commission counsel and the Inquiry appraisal  
5 team and it will not in any way represent my own views,  
6 nor will it in any way be binding upon me and I may say  
7 I don't know what proposals they're going to bring  
8 forward and I don't want to know until they bring  
9 them forward, and then I want the rest of you to tell  
10 me what you think of those proposals and then I'll  
11 make up my mind."

12 Now sir, I thought about  
13 this matter last night, I thought about this morning.  
14 There's no earthly reason to me why Mr. Scott's terms  
15 and conditions are being made available to us, in  
16 advance other than so that the other participants can  
17 consider them, get advice from their clients on them  
18 and present their views to you on November the 15th  
19 or whatever other date is being proposed.

20 Now sir, Mr. Steeves says  
21 that he will not be prejudiced by the fact that this  
22 period has been compressed to three weeks from four  
23 by virtue of Mr. Scott's unilateral action. I can  
24 tell you sir, that Foothills will be prejudiced at  
25 this very point in time, several of our staff people  
26 are preparing to go down to the Federal Power Commission  
27 for hearings that are ongoing in Washington. We are  
28 also on in Ottawa next week before the National Energy  
29 Board. Mr. Steeve's client is in the somewhat better  
30 position, because their case before the Federal Power



Commission is virtually concluded. I sir, am in the position of having to take Mr. Scott's terms and conditions on whatever date we get them and we don't have a guarantee yet, that they will be on October the 25th, to take those to my client and say, now here engineering staff, here environmental staff, here Socio-economic staff, you look over this long involved document and that's what I fully expect it to be sir. We know already it's going to be 3 or 400 pages and I'm sure it's not going to be like reading a fairy tale. I'm going to have to take that document to them and say, now, you look at that and come back to me and tell me what your views are and whether we agree with it, whether we'd alter it slightly or whether we disagree with it totally and with respect sir, the time that we are now being left is not enough. As Mr. Veale quite rightly pointed out yesterday, the terms under which the argument is to proceed, will really thrust upon other counsel by Mr. Scott. They were not agreed to willingly, and by that I mean that there was a reluctant agreement to them and you heard last week as to how much agreement there was on that. Mr. Gibbs pointed out last week, and the fact is, that we can live with four weeks, three weeks is just not enough, and the issue of whether our argument is being prepared now, or not, is a totally a side issue sir. In our respectful opinion, we are also dealing with the question of how long we have to review Mr. Scott's materials and I say sir, that three weeks is not enough, particularly when in the last week, we will



1 also be reviewing the argument of all the other parties.  
2 That's all I have to say sir.

3 THE COMMISSIONER: Well  
4 excuse me, Mr. Hollingworth. When would Foothills  
5 be ready? How much time would Foothills need?

6 MR. HOLLINGWORTH: I'm sorry sir?

7 THE COMMISSIONER: You say  
8 that three weeks won't be enough for you to review  
9 Mr. Scott's argument and be ready to tell me what you  
10 think of it. I assume that you -- that you will be  
11 ready on November 15th to present your own argument,  
12 your claim is, that you will not be ready to meet  
13 Mr. Scott's argument to review the proposals he intends  
14 to make and to give me your reaction to those proposals.  
15 Well all I'm saying is, when would you be ready?

16 MR. HOLLINGWORTH:

17 Well sir, I thought I'd  
18 made it clear that with some reluctance, we are  
19 prepared to accept the four week period that was laid  
20 down previously. I think with a good deal of hard  
21 effort, that we can get some reasonable proposals to  
22 you at the end of a four week period. Three weeks  
23 is simply, not enough. It's a critical enough period  
24 with four weeks, three weeks becomes in my submission,  
25 an impossibility. I'm sure we could produce something  
26 at the end of three weeks, but I'm very concerned about  
27 the quality of argument you're going to be getting  
28 and the quality of comment on Mr. Scott's proposals.

29 MR. SCOTT: Well Mr. Commissioner  
30 just two observations. I think my friends quotations  
from my statements which I have no doubt are accurate,





1 overlook the spirit of the proposal that was made,  
2 which was to see to it, that all parties should exchange  
3 their draft submissions at the earliest possible time  
4 and it was our desire that those should be available  
5 from our staff as they will be, in advance of the  
6 requirement to produce draft recommendations from  
7 others. I emphasize again, that there is nothing  
8 final about any of these drafts that will be made.  
9 I don't anticipate that when Foothills makes a proposal,  
10 and circulates it on November the 8th, that it will  
11 not be in a position having heard the argument of  
12 others to amend that in reply argument or to alter it  
13 or withdraw it, so there's nothing final about these  
14 things, it's simply a notice provision and I think  
15 that was the spirit of the proposal. I certainly  
16 didn't intend and I don't think anybody understood  
17 that these proposals were written on stone and could  
18 not be varied in the argument week, indeed it's the  
19 expectation that in the exchange and response during  
20 argument week, there will be variations on all sides.  
21 If there aren't, it will be indeed surprising. There-  
22 fore the notice requirement which was the understanding  
23 the central understanding of our agreement has been --  
24 has been and will be met. It's perhaps sardonic to  
25 refer to it. Mr. Hollingworth says that his agreement  
26 was reluctant. Over a year and a half most of his  
27 agreements have been reluctant and I've been delighted  
28 by that, that is an agreement of a high standard for  
29 Mr. Mollingworth and I'm content with it and regarded  
30 it as no minor achievement to obtain a -- by arm





1 twisting, his agreement to a --

2 THE COMMISSIONER: Not to  
3 mention coercion.  
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1 MR. SCOTT: Yes, his agreement  
2 to a proposal whereby we gave him advance notice of the  
3 things that we propose to argue. He reluctantly agreed  
4 that we should give him advance notice of what we  
5 proposed to argue, and we are doing that.

6 The third thing is that if  
7 he requires another week, he's made clear that that  
8 week isn't required to make his own argument. His own  
9 argument will be ready on November 15th, and its  
10 fullness will be exposed to all of us. What he requires  
11 is another week to digest whatever draft we produce,  
12 and it seems to me that by the middle of the week of  
13 the 15th, that is by the 18th or 19th, he will have  
14 had very close to the additional week and perhaps if  
15 it might be possible at the end of that week to set  
16 aside a period when his people will be ready to in  
17 fullness reply to our comments. I think in other  
18 words the timing of the Inquiry, assuming argument  
19 may take three or four days, will allow him the  
20 additional time that he requires to respond effectively  
21 to what we may say.

22 But I want to counsel all  
23 my colleagues that these are draft proposals and they  
24 will, as the proposals of all participants, suffer  
25 a few changes, no doubt, after they're submitted and  
26 after we go into argument. So hopefully no one will  
27 regard any of them as the final word by us or by any  
28 of them on proposals. I expect to learn a lot from  
29 what my friends have to say, and perhaps to vary or  
30 modify my proposals as we go through argument.





I've nothing further to add, sir.

MR. SIGLER: Sir, I wonder if Mr. Scott would not have some material ready before the 25th that could be circulated? It may not be completed by the 25th, but surely there are portions or some of the Commission counsel's submission will be prepared before then. Perhaps some of it could be circulated the week of the 18th still, and the balance follow on the week of the 25th. Surely some of the work has been done.

MR. SCOTT: We will try to do that, sir, but one of the difficulties is the necessity of integrating the various proposals, and that really is in part the substantial work that has to be done. As everyone knows by now, engineering suggestions impinge on social concerns, and on environmental concerns, and it's the work of integration to make sure that one proposal doesn't do damage to another that is so difficult, and we hope to be able to let it out piecemeal, but it seems to me that that's very difficult. We will, however, look at it and see what we can do, and I thank Mr. Sigler for the suggestion.

MR. HOLLINGWORTH: Sir, this motion has proceeded in an unusual order, perhaps, since the proponent went last; but I think I'm still entitled to respond to Mr. Scott, and I have a number of observations.

In the first place, he said



and emphasized that his recommendations are not written in stone but that they can be altered in argument week. Well, I agree with him 100%, and that's the point I thought I had made to you. We need the time to look over Mr. Scott's terms and conditions and recommendations in order to decide whether in fact we should agree with them or we feel they should be altered somewhat, or whether they should be rejected in their entirety.

He also said that he got a reluctant agreement from Foothills to the early production of his terms and conditions prior to argument. I think Mr. Scott is being a little inaccurate there. There was never a reluctant agreement on that issue, and the disagreement was on the amount of time left after the hearings before argument, and the manner in which it would proceed.

Lastly, he says that effectively we will have the time that we wanted to obtain the necessary comments and to comment on his terms and conditions because it will be Wednesday or Thursday during the week of argument before we get on. It seems, sir, that that's an infatuous argument indeed. We're going to be very busy during that week on matters that come up during the week and I don't think I need to tell you that we're going to be much too busy with those matters to concern ourselves with matters that should properly have been dealt with before we even come up to Yellowknife.

THE COMMISSIONER: Anybody else





got anything to say? Well, I've been thinking about this overnight, in light of the very strong representations made by Mr. Veale and Mr. Evans yesterday.

I think it should be understood that we're dealing with two things.

First of all, on November 15th we are reassembling here to consider the final submissions of each participant at this Inquiry. These two companies that say they are ready, willing and able to build this vast pipeline, the native organizations which are concerned with a whole range of issues, all of them intertwined in one way or another with the subject of native claims. The environmental organizations which are concerned with these vital questions relating to the preservation of the environment. The municipalities which are concerned with the impact that pipeline and corridor development will have on the municipalities, and on local government. The Chamber of Commerce that is concerned with the impact on northern business and measures that can be taken to enable them to benefit from the project, if it goes ahead. The Mental Health Association, which is concerned about questions of social impact as they bear on mental health. Each participant should have by now determined the main lines of the argument that it is intended to present to this Inquiry on November 15th, and you have all agreed, reluctantly or otherwise, that you should exchange among yourselves a summary or outline of the main points you intend to make a week before you come here to make them. That is on



November 8th.

Now, I want it understood that as far as I'm concerned I expect that you all will be ready by November 8th to circulate the proposals you intend to make in whatever detail you in your own good judgment feel is appropriate, and then to present them to me orally here on November 15th.

Now that procedure, it seems to me, is one that you must all be expected to live up to, and I cannot imagine that any of you would not be ready to do that. The pipeline companies are vast corporate organizations with proposals before this Inquiry to spend billions of dollars, and if they are to build the pipeline they certainly ought to be expected at this stage to be able to deal with a range of issues that the impact of their project presents to the north.





Let me turn to the second matter and that relates to the circulation of Mr. Scott's proposals. I thought I made it clear that in the normal course of events, an Inquiry of this kind, in an Inquiry of this kind, in a Commission of this kind, the proposals to be made by Commission counsel wouldn't be circulated at all and any of you who've had any experience before a Royal Commissions or before Statutory Tribunals know that that seldom if ever occurs.

I felt that we should institute a new practice in this Inquiry in order to make sure that so far as Commission counsel and his staff were able to do so, so far as their thinking had developed at this stage, they would disclose it to all of you so that you would know what Commission counsel and the Inquiry appraisal team propose to say to me, the advice they propose to give to me.

Now, that has not been done in the past in commissions and inquiries in this country and it is being done in this instance so that you will know what Mr. Scott, Dr. Fyles, and their team propose to say to me so far as their thinking has advanced to this stage. Now, that has not been done in the past in this country in connection with commissions and inquiries. It was to enable all of you to review the work that they had done and then to come before me and present your own views and then to say here are the objections we wish to make to Mr. Scott's proposals, the modifications we wish to propose



1 to Mr. Scott's proposals or the support we wish to offer  
2 them.

3 Now, I see the point that Mr.  
4 Veale and Mr. Evans and Mr. Hollingworth have made. I  
5 can understand their concern that given this new practice  
6 and the extent of Mr. Scott's proposals, because the  
7 Inquiry appraisal team that works for Mr. Scott and  
8 will be presenting its proposals to the Inquiry is the  
9 only group that has been obliged by my direction to  
10 develop a series of proposals extending over the whole  
11 range of the work of the Inquiry.

12 The rest of you don't have  
13 that obligation and as I made clear to Mr. Evans  
14 yesterday, I want you to spend your time developing  
15 your proposals in connection with the things that you  
16 are funded to examine and to deal with. Now, I  
17 understand the concern that has been expressed. We are  
18 in this position that quite apart from the work that  
19 you people have to do, and it has been considerable  
20 and will be considerable until the final submissions  
21 have been completed, I have to complete a report. I  
22 am anxious to complete my report so that it can be  
23 submitted to the Minister of Indian Affairs and Northern  
24 Development and his colleagues early in the new year.

25 We have given a fair and  
26 complete hearing to all of the parties of this Inquiry  
27 and to all northern peoples. We have instituted new  
28 procedures designed to ensure the fullest measure of  
29 fairness to all concerned and Mr. Scott's circulation  
30 of his own proposals exemplifies this, but the time is





1 soon coming when judgment must be brought to bear on all  
2 the questions raised at this Inquiry and I have to bring  
3 my best judgment to bear on those questions and then the  
4 Government of Canada has to consider the findings that  
5 I make and the recommendations that I make.

6 There are two companies that  
7 want to build this pipeline. One of them is an  
8 international consortium that has to satisfy the  
9 requirements of the regulatory tribunals of two nations;  
10 Canada and the United States, and it is something that  
11 we are all aware of. We are all aware of the fact that  
12 the shortage of gas in the United States is greater  
13 and more urgent than it is here in Canada and that the  
14 Government of the United States is anxious to consider  
15 these matters and to reach a decision as soon as it  
16 can.

17 Now, I want to ensure that  
18 Arctic Gas has an opportunity of meeting the requirements  
19 of the U. S. Regulatory Tribunals without the progress  
20 of its case being impeded by delays in Canada that need  
21 not be suffered. I have made it clear from the  
22 beginning when Arctic Gas came before this tribunal back  
23 in April, 1974 and told me they wanted the community  
24 hearings completed by July 14, 1974 and then wanted  
25 the formal hearings to proceed presumably on July 15,  
26 1974, to be completed in the fall of 1974 at a time when  
27 their own pipeline proposals had not been fully developed  
28 and those proposals have undergone fundamental changes  
29 in the interim.

30 It would have been unwise, it



1 would have been altogether a mistake for this Inquiry  
2 to accede to the proposals made by Arctic Gas at this  
3 stage. But Arctic Gas has co-operated fully with this  
4 Inquiry as Foothills has and so have all the participants.

5                   It seems to me that we have  
6 provided a fair hearing to all concerned and we are  
7 in a position where we should bring judgment to bear  
8 on these questions so that the government of the two  
9 countries can decide what is to be done. Now, I am  
10 therefore going to deny the motion that Mr. Veale and  
11 Mr. Evans and Mr. Hollingworth have brought forward  
12 subject to this; that if on November the 15th they  
13 indicate that they wish further time to consider the  
14 proposals made by Mr. Scott, which they will then have  
15 had a period of three weeks to consider, if they indicate  
16 that they still have not had sufficient time to consider  
17 his proposals then, I will be prepared to consider the  
18 adoption of some procedure that will enable us to obtain  
19 the benefits of whatever additional studies they wish  
20 to devote to those proposals.



That may mean that I will invite <sup>/them</sup> to submit their further views in writing at that stage. Written argument is well known and often used procedure in the Courts of law and it is certainly adaptable to the proceedings that we are using here and, of course, their written argument will indeed be circulated and everyone else will have an opportunity to respond to it.

At this stage, I think that satisfies my concern that we should proceed with all deliberate speed to the conclusion of the Inquiry and at the same time, satisfy their concerns that they should have, if needed, four weeks instead of three to consider Mr. Scott's proposals and to let me have their views upon them.

I have made it clear from the beginning that everybody would have the fullest opportunity to call their evidence before this Inquiry and to make their submissions to this Inquiry and they will have that opportunity. It may be that it will be done in writing sometime subsequent to November 15th if they advise me on November 15th that that is going to be necessary.

MR. SCOTT: Mr. Bayly, are you ready to call your witness?

MR. BAYLY: Yes, I am.

MR. HOLLINGWORTH: Before Mr. Bayly proceeds, I have a response. I've given a copy to Miss Hutchinson already. I've also given copies to Commission counsel and to Mr. Sigler because they were





1 the people who specifically requested that. There were  
2 responses to requests made by Commission counsel when  
3 the second socio-economic panel Foothills appeared  
4 dealing with the possible items to be purchased in the  
5 North by Foothills Pipe Lines and the additional  
6 information regarding medical and first aid facilities  
7 provided at construction camps. I have a few other  
8 copies for the participants who would like those and  
9 I would like to file a copy of this response.

10 MR. SCOTT: That should be the  
11 next exhibit then, Mr. Commissioner. I think Mr.  
12 Steeves would like to say something.

13 MR. STEEVES: Mr. Commissioner,  
14 on October 13th, which I think was last Wednesday, your  
15 counsel, Mr. Scott, put a number of questions into the  
16 record concerning the statement which I had made earlier  
17 about the fault in the test cells in the question of  
18 frost heave and methods of handling it and some data  
19 that we had.

20 You said at the conclusion  
21 of the questions that you required Arctic Gas to answer  
22 those questions or answer as much of those questions  
23 as it could not later than Friday. I have taken steps  
24 to comply with that direction and I have what I consider  
25 as counsel for Arctic Gas the most complete and res-  
26 ponsive answers that are possible at this time.

27 Now, the way I propose to  
28 deal with the matter is to state the question and  
29 then give the answer. Now, I would appreciate your  
30 direction in the matter. I can read this out, the



1 questions and the answers, and it consists of four or  
2 five pages or I can do it by letter which I think I  
3 can circulate this afternoon.

4 THE COMMISSIONER: Well, why  
5 don't you read the questions and the answers. This is  
6 a matter of fundamental importance--

7 MR. STEEVES: Yes, it is.

8 THE COMMISSIONER: --Arctic  
9 Gas' application.

10 MR. STEEVES: I agree, with  
11 respect. Can I now read the questions that were put  
12 by Mr. Scott and the answers of Arctic Gas to those  
13 questions and incidentally the reference for the  
14 questions commences at page 30975 of the transcript.

15 QUESTION 1: Can Arctic Gas confirm that the  
16 malfunction reported in Mr. Steeves' statement is in  
17 the apparatus that has been used by Northern Engineering  
18 Services in testing samples to determine shutoff  
19 pressure and that the measurements that are in question  
20 as a result of the malfunction are the laboratory heave  
21 test data listed as Item C in the following quotation  
22 from the conclusion to what is identified as a summary  
23 of a method for predicting frost heave published by  
24 Northern Engineering Services, March, 1975, page fifteen  
25 and the quotation to which we refer Arctic Gas is as  
26 follows:

27 "Within a framework of the assumptions made  
28 in the formulation of this semi-empirical  
29 method, relationships have been derived to  
30 calculate readily the amount of frost heave





1 under a chilled gas pipeline. The data  
2 required for solution are:

- 3 a) the pipeline configuration, depth of  
4 burial, depth of surcharge.  
5 b) the soil data, moisture content, grain  
6 size, and stratigraphy.  
7 c) laboratory heave test data, shutoff  
8 pressure, relationship between segregational  
9 heave rate and effective stress.  
10 d) geothermal prediction for depth of frost  
11 versus time."

12 The answer, sir, to that question  
13 is this:

14 ANSWER: The malfunction does not affect the  
15 methodology for the validity of the semi-empirical  
16 formula that has been developed. The input specified  
17 in a, b, and d above are not affected. The malfunction  
18 does affect the results obtained from the laboratory  
19 heave tests. Specifically, the values of shutoff  
20 pressure and the relationship between segregational  
21 heave rate and effective stress, mentioned in item c  
22 in the quotation.

23 QUESTION 2: In the light of what Arctic Gas knows  
24 about the malfunction, are the correct values of the  
25 shutoff pressure larger or smaller than the values that  
26 have been determined by Arctic Gas earlier?

27 ANSWER: The correct values of shutoff pressure  
28 are larger than determined by Arctic Gas earlier.

29 QUESTION 3: Does this change imply that the maximum  
30 shutoff pressure that Arctic Gas will have to design for



1 will be higher than its earlier estimates of 4,000  
2 pounds per square foot?

3 ANSWER: Yes. The maximum shutoff pressure will  
4 be greater than 4,000 pounds per square foot.

5 QUESTION 4: It would be extremely helpful if  
6 Arctic Gas could provide as soon as possible an opinion  
7 on the magnitude of the difference between the maximum  
8 determined and the correct shutoff pressure.

9 ANSWER: Arctic Gas cannot now provide an opinion  
10 on the magnitude of the difference between the pressures  
11 previously determined and the correct shutoff pressure.  
12 The practical limit of surcharge berm and deeper burial  
13 as a control method for frost heave is 3,000 to 4,000  
14 pounds per square foot shutoff pressure range. Where  
15 greater pressures are indicated, it appears that  
16 alternative design methods are more practical. Arctic  
17 Gas will not be pursuing research on soils where the  
18 shutoff pressure is greater than the practical limit  
19 of 3,000 to 4,000 pounds per square foot, but will define  
20 the shutoff pressure for soils below that range.  
21  
22  
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30



1 QUESTION 5: If Arctic Gas could as soon as  
2 possible -- I'm sorry, have I read Question 5?

3 MR. SCOTT: Will you start  
4 again, please?

5 MR. STEEVES: It would be  
6 extremely helpful if Arctic Gas could as soon as  
7 possible provide an opinion as to whether the heave  
8 pressures that could be encountered are larger than  
9 could be controlled by deep burial and/or surcharge  
10 berm.

11 ANSWER: Arctic Gas believes that there are  
12 some soils in which the heave pressure is larger than  
13 can be controlled by deep burial and/or surcharge.  
14 Now there are some methods alternative to deep burial  
15 and surcharge which are available to control the problem  
16 in that area, and I list these as follows.

- 17 1. Insulation of the pipe.  
18 2. Insulation of the pipe with heat trace.

19 THE COMMISSIONER: Wait a  
20 minute. I want you to --

21 MR. STEEVES: I'll repeat 2  
22 if I may.

- 23 2. Insulation of the pipe with heat trace.  
24 3. Operation of pipe at temperatures closer to 32  
25 degrees Fahrenheit  
26 4. Replacement of frost-susceptible soil  
27 5. Placement of pipe with insulation on a berm on  
28 the ground surface.

29 Now, a question I suggest  
30 that naturally arises out of all of those questions





1 is one that my friend did not put, but I would like  
2 to answer, and that is when will Arctic Gas know whether  
3 alternatives -- mentioned in the answer to question  
4 5 -- will have to be adopted, and when will Arctic Gas  
5 know which of those alternatives, if one has to be  
6 taken, will be used?

7 And the answer to that and  
8 the most accurate answer I could get for this Inquiry  
9 was that all of that information was expected to be  
10 known and available and will be made available in  
11 early 1977. Now, I want to end by saying this, sir.

12 On page 30978 of the transcript  
13 following on a statement of those questions by Mr.  
14 Scott you made reference to the importance and signifi-  
15 cance of the whole question of frost heave and of  
16 the problem with the test data, and I want to make a  
17 statement about that.

18 I want to reiterate that the  
19 malfunction in the test apparatus does not go to the  
20 theoretical basis used by Arctic Gas for constructing  
21 the buried gas pipeline. Now, it may affect a certain  
22 limited area. It may affect the mitigative measures  
23 to be adopted in a maximum of 250 miles of the route  
24 which lies between Fort Good Hope and the 60th Parallel,  
25 approximately half of that 250 miles being north of the  
26 Willowlake River.

27 Now, those are the answers  
28 which I obtained to the questions put by MR. Scott.

29 THE COMMISSIONER: Really only  
30 one other question that arises and that is:



When will Arctic Gas know any of the alternate  
design measures will in fact work?

MR. STEEVES: Well, I was going to refer you to some evidence in the N.E.B., but I would prefer to answer that question directly from the discussions I had yesterday in Calgary.

The consultants with whom I discussed this matter didn't pose those alternate design or alternate mitigative measures as possibilities. They posed them as methods that would work.

It's not a question of determining whether or not any of them will work, that's not the point. The point is another examination of a limited soil classification in the area that I've described to you within the 250 miles maximum and a decision involving a number of things, including economics, if the examination of the soil type indicates we have to turn to some alternative, then a decision as between those alternatives which is the most economical and most practical in the area involved; but I don't want any question about that. Arctic Gas' position is these are alternatives that will work.

THE COMMISSIONER: Right.

MR. STEEVES: Nothing that I've told you is guesswork. What I am telling you is the considered opinion and belief of Arctic Gas' consultants.

THE COMMISSIONER: O.K.



MR. SCOTT: Well, Mr. Bayly, if you're ready now.

MR. BAYLY: I think I am, Mr. Scott.

THE COMMISSIONER: Thank you, Mr. Steeves and let me say I appreciate the trouble you and your clients have gone to to give us this information before the close of the hearings.

MR. STEEVES: May I say if my tongue tripped over itself, it's because of the jet lag in flying to Calgary and back.

MR. BAYLY: I thought it was the coffee on the P.W.A.

Mr. Commissioner, before the two witnesses are introduced to you --

THE COMMISSIONER: It's the last day, Mr. Bayly.

MR. BAYLY: Mr. Commissioner, while the witnesses are being sworn, I'd like to file two documents -- three documents as exhibits. One is "Land Regulation in the Canadian North" by Peter Usher and Grahame Beakhust. It was referred to as having been filed by Mr. Evans, but we checked and it is listed but not filed.

THE COMMISSIONER: Somebody wrote a book this year, too.

MR. BAYLY: I think the book was referred to in somebody's evidence recently, sir. I'm just trying to think of whose it was. I think it was Mr. Thompson's -- Dr. Thompson's evidence.





THE COMMISSIONER: Yes, I just wondered if the book had been filed.

MR. BAYLY: I don't know whether it has. I'm not aware that we have a copy of it, sir. I will check that, though, and if you wish it filed, we'll obtain one for the Commission.

I have also a report which was released yesterday called:

"Inuit Land Use and Occupancy Project," it's a three-volume study. I'd like to submit it as an exhibit. Only a limited number of advance copies were prepared and one was presented to the Minister yesterday. I regret because of that I don't have copies of all participants, but if they wish them they can be obtained within the next two weeks apparently, from the Department of Indian & Northern Affairs, when they will be generally available.

I also have a document called, "Proposal for Native Legal Worker Program and Community Legal Centre in the Western Arctic," which was listed but not filed earlier, and I file that now for the general information of other participants of the Inquiry.

THE COMMISSIONER: About a Legal Centre?

MR. BAYLY: A Legal Services Centre, yes sir.

THE COMMISSIONER: O.K. Did you say for the Western Arctic?

MR. BAYLY: For the Western



Arctic, yes sir. It's a proposal for a Legal Services Centre in Tuktoyaktuk. We anticipated that evidence was to be led by Commission counsel but apparently none was available on the Court system, and because none was, we have presented this as a solution to some of the problems that COPE wants to put forward.

Mr. Steeves wants to add something just before I take Mr. Zemansky through his qualifications.

MR. STEEVES: Thank you, Mr. Bayly. It's been pointed out to me that the dimensions of the problem may not have been made clearly stated. I referred to the region between Fort Good Hope and the 50th Parallel. Of course that's not 250 miles, I think it's closer to 600, it's certainly far more than 250 miles. The soil classification we're talking about extends over 250 miles of that total alignment.

THE COMMISSIONER: Yes, I think we all understand that, Mr. Steeves. You're speaking of the zone of discontinuous permafrost.

MR. STEEVES: Yes.

THE COMMISSIONER: And within that zone I take it you're concerned about the stretches containing ice-rich soil.

MR. STEEVES: And I think 350 miles of that system we're not concerned with.

THE COMMISSIONER: Well, 250 miles sounds like a fairly decent stretch of --

MR. STEEVES: It's a 10-day walk.



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In Chief

(LIST OF GOODS & SERVICES FOOTHILLS INTENDS  
TO PURCHASE IN THE N.W.T. MARKED EXHIBIT 880)  
(QUALIFICATIONS & EVIDENCE OF G. BEAKHUST  
MARKED EXHIBIT 881)  
(QUALIFICATIONS & EVIDENCE OF G.. ZEMANSKY  
MARKED EXHIBIT 882)  
("LAND REGULATION IN CANADIAN NORTH" BY USHER  
& BEAKHUST MARKED EXHIBIT 883)  
("NUIT LAND USE & OCCUPANCY PROJECT" BY DIAND  
MARKED EXHIBIT 884)  
("PROPOSAL FOR NATIVE LEGAL WORKER PROGRAM &  
COMMUNITY LEGAL CENTRE IN WESTERN ARCTIC" BY  
COFE MARKED EXHIBIT 885)

GRAHAME BEAKHUST, resumed:

GILBERT M. ZEMANSKY, sworn:

DIRECT EXAMINATION BY MR. BAYLY:

Q Mr. Zemansky, if I could  
take you through the biographical sketch that you  
have prepared at my request at the end of your  
evidence, I understand that you attended the U.S.  
Naval Academy at Annapolis, Maryland, between 1961 and  
1965, where you attained your Bachelor of Science with  
a double major in mechanical and ship propulsion  
engineering.

WITNESS ZEMANSKY: That's  
correct, yes.

Q And between 1971 and  
1973 you attended the University of Colorado in  
Boulder, Colorado, where you obtained a Master of





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Science with a major in sanitary engineering.

A Yes, that's correct.

Q And between 1974 and 1975 you attended the University of Alaska at Fairbanks and took a course of instruction in Arctic engineering.

A Yes.

Q And from 1976 -- that is this year -- to the present you have been either attending or attached to perhaps you can tell me --

A Right, I just commenced a doctoral program at the Oregon State University this September, and I am also teaching half-time as an instructor.

Q And your doctoral program that you've entered is one in which you're majoring in water quality engineering and water resources engineering.

A Right.

Q And your professional experience includes during the period 1965 to 1971 service with the United States Navy, which was related to engineering.

A Yes, five years of that was in line engineering billets and one year was in line billet.

Q And between 1971 and 1973 you conducted research as a research assistant with the University of Colorado.

A Right.



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Q And that was a foundation project studying environmental occurrence and biological effects of molybdenum.

A Yes, I was primarily environmental reconnaissance and investigation of treatment process effectiveness.

Q And between 1973 and '74 you were a sanitary engineer with the California Water Resources Control Board, where your primary duties involved evaluation of compliance and enforcement of the state's ocean and thermal plans for the protection of water quality.

A Yes sir.

Q And in 1974 you were a sanitary engineer with the Yukon Kuskokwim Health Corporation.

A Yukon Kuskokwim.

Q And you conducted a survey of environmental health problems in native villages in south-western Alaska at that time.

A Yes.

Q And from 1974 to '75 you were a sanitary engineer with the Alaska Department of Environmental Conservation,

A Yes sir.

Q And your primary duty there was to monitor the Trans-Alaska Oil Pipeline construction activities for compliance with state environmental laws.

A Yes, I was the only full-time pipeline monitor that they had assigned at that time.



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Q And between 1975 and '76 you were an environmental engineer with the Institute of Water Resources at the University of Alaska.

A Yes sir.

Q Where your primary duties involved water quality research and instructing in water quality engineering.

A Yes.

Q And at present, as you've outlined, one of your duties is an instructor with the Department of Civil Engineering in the State of Oregon.

A Yes.





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Q Now Mr. Commissioner,  
Mr. Beakhust has appeared before this Inquiry and so  
I don't propose to review his qualifications. If we  
could start with his evidence --

THE COMMISSIONER: His qualifications are in the forefront of my mind.

Q Thank you sir.

Mr. Beakhust, could you start  
by reading your evidence into the record please?

A I'm somewhat awed  
in your most recent comment and also by the fact that  
this is the last panel of witnesses before the Inquiry  
and in addition to the fact that one of my own former  
high school teachers is in the audience this morning.  
It's now -- I estimate something like 31,500 pages  
since my name first appeared in the record of this  
Inquiry.

Q Was it spelled right  
at that time Mr. Beakhust?

A It was misspelled at  
that time.

THE COMMISSIONER: This is a  
good time to clear that up.

A And I might also say that  
of course, I am extraordinarily pleased as any academic  
would be to have the last word. My evidence this time  
Mr. Commissioner is -- it centres around the question  
of problems of regulating industrial activity in the  
Canadian north and I look particularly in this evidence  
at a couple of existing regulatory systems now operating



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1 in the Northwest Territories and I offer some guarded  
2 speculations as to what implications a study of these  
3 sorts of regulations has before any recommendations  
4 you might make respecting Mackenzie Valley Natural  
5 Gas Pipeline.

6 The north, like most colonies,  
7 has always been governed to a large extent by regulations.  
8 The term delegated legislation is now somewhat unfash-  
9 ionable, but perhaps better described a situation in  
10 which many significant decisions are made not directly  
11 by a responsible legislature, but rather by an execu-  
12 tive and administration who exercise broad and often  
13 ill-defined powers delegated to them. This of course,  
14 is a common practice in the south as well, but in  
15 the north the people do not even possess the ultimate  
16 sanction of removing from legislative power, those  
17 responsible for delegating it to a government or  
18 bureaucracy. In addition, the legislating authority  
19 for the north is itself located outside of the terri-  
20 tories, and exercises its power through a middle and  
21 lower management in the north answerable not to  
22 northerners but to bureaucratic superiors and political  
23 masters in the south.

24 The purpose of delegating  
25 legislative power is usually to permit day to day  
26 administration of public affairs by public servants.  
27 In the north however, much of what would more normally  
28 be thought of as policy making is also conducted  
29 through regulation. Possibly through limited interest  
30 in the region and perhaps because of its miniscule



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1 political influence, the federal government has tra-  
2 ditionally chosen to legislate for the north only in  
3 the broadest of terms and to leave any detailed policy  
4 making and planning to its various departments and  
5 their senior officials. I do not mean by this, to  
6 suggest, as high school civics tests sometimes do,  
7 that Parliament makes the laws and civil servants  
8 administer them. Senior officials clearly play a  
9 major role in suggesting as well as drafting legisla-  
10 tion, but in the case of the north, there has been  
11 little government inclination to spell out in detailed  
12 legislation its public purpose and even less interest  
13 has been shown in such matters by the federal legisla-  
14 ture. The end result is a situation in which no one  
15 involved in the higher echelons of northern decision  
16 making is responsible for the people for whom the  
17 decision is not presumably being made. And these  
18 decisions, or at least many of the most important of  
19 them, are made through regulation,

20 Regulation has two kinds of  
21 meanings to political scientists.

22 One is the type suggested  
23 above, the specifics of legislation spelled out as  
24 directives to both public servants and the population  
25 at large and how they should <sup>/or</sup> not go about  
26 the business of administrating -- administering and  
27 adhering to laws made on their behalf by their rep-  
28 resentatives. Regulations pertaining to the structure  
29 and safety of this building are good example, as are  
30 those that provide to the orderly movement of traffic





Deakhust, Zemansky  
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1 on the streets.

2 A second kind of regulation,  
3 emerged from the new deal in the aftermath of the  
4 depression. When Keynesian economics suggested  
5 the one way to patch up or perhaps cover up the more  
6 blatant inefficiencies and iniquities of capitalism  
7 was to regulate key sectors in industries in the  
8 public interest. It is worth remembering that both  
9 at the time and since, many of the industries brought  
10 under this kind of regulation have in fact, welcomed  
11 it, as a means of controlling the vagaries of the  
12 market place and guaranteeing long term viability  
13 and profitability. The history of such regulation  
14 is replete with evidence of this and to the extent to  
15 which the regulated industries have captured the  
16 agencies that supposedly regulate them. The distinction  
17 between these two concepts of regulation is by no  
18 means clear and there are obvious overlaps between  
19 them. What does distinguish them quite well, is the  
20 way in which their effectiveness is assessed. Regula-  
21 tion of the second sort is traditionally an economic  
22 concept, and both its practitioners and evaluators  
23 have typically been economists and lawyers. Those  
24 tend to be circumscribed by their calling and economists  
25 in particular, have come to judge the regulatory process  
26 almost exclusively by its economic impact on the regu-  
27 lated. That is to say, the performance criteria of  
28 any system of regulation is commonly economic utility  
29 and particularly that of the regulated industries  
30 themselves. If you want to evaluate the effectiveness



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1 of the Canadian Transport Commission's regulation of  
2 the air transportation, you look first at the balance  
3 sheets of the airlines involved. That profitability  
4 of the regulated is, to put it rather simply, the  
5 touchstone of a regulatory systems effectiveness was  
6 amply demonstrated last November during the first  
7 conference on a search into the regulatory process  
8 in Canada held at McGill.

9 If this is how the academics  
10 view the process and analyze regulation, then it  
11 should come as little surprise, that those involved  
12 as regulators tend to adopt similar principles in  
13 conducting their day to day affairs.

14 There are two fundamental  
15 weaknesses with looking at regulation this fashion.

16 One, is that there is little  
17 evidence to suggest that the economic viability of  
18 a regulated industry or activity is any measure of  
19 its social utility, just because an airline makes  
20 money, does not mean that it either provides the most  
21 effective or efficient service to its passengers.  
22 All that the service it offers are in the long run,  
23 those of greatest benefit to the largest society of  
24 which its passengers form, a usually small part.  
25 Economic analysis in short, is no measure of social  
26 impact.

27 The second weakness of this  
28 approach is that it has very little to say in the  
29 case of environmental regulation or any kind of regu-  
30 latory activity that is not designed primarily to



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1 serve an economic interest. The economists have a  
2 hard time identifying who the clients are in a system  
3 of land or water use regulation and while the goals of  
4 this kind of regulation may well be reasonably clear,  
5 it is not so easy to identify at a practical level  
6 precisely what or who is being regulated. Efforts  
7 have been made to quantify even such things as snow  
8 geese, I believe I have heard a figure of somewhere  
9 in the region of \$75.00 a head when everyone's costs  
10 excluding the goose's are added up, but in the long  
11 run economic analysis offers little enlightenment  
12 where economic concerns are not the primary goal of  
13 regulation. Land use regulation for example may  
14 have substantial economic impact on industry, but  
15 this is not, at least officially, the central concern  
16 behind introduction of such measures.

17 THE COMMISSIONER: By the  
18 way, I think you heard that figure for snow geese  
19 at this Inquiry but it was \$50.00, wasn't it Mr. Scott?

20 MR. SCOTT: \$50.00.

21 MR. BAYLY: That was a year  
22 ago, sir and I don't think they're covered by the  
23 guidelines.

24 A There must be a rate  
25 of goose inflation as well as everything else Mr.  
26 Commissioner. No doubt the price of geese has gone  
27 up the same as the price of pipe.

28 Regulation is concerned,  
29 very broadly with the protection of the environment  
30 constitutes I suspect, a third type that combines





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1 elements of the two outlined above along with the  
2 developing concern about our homocentric attitude  
3 towards the biosphere that supports us. A whole  
4 range of issues associated with the insides of  
5 ecological thinking. If one looks at the development,  
6 administration and enforcement of the territorial  
7 land use regulations, it becomes clear that they are  
8 neither a technique for regulating the general affairs  
9 of the northern population nor specifically a means  
10 for regulating activities of industry to its own  
11 economic benefit. Rather they come from a complex of  
12 concerns about the environment, that are at the same  
13 time bound up with others that centre around the  
14 development of resources. It is the ambiguity of  
15 origin and purpose that not only leads to ambiguity  
16 and ineffectiveness in implementation, but also to  
17 more important questions about the ability of reg-  
18 ulation to play any significant role in protecting  
19 the future of a great river valley and it's people.



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1 I want first, however, to look  
2 briefly at two systems of regulation now operating in  
3 the North. One, a conventional regulation of industry  
4 and the other a system of environmental regulation.  
5 In both cases, there is confusion about goals and  
6 scopes in addition to weaknesses in administration and  
7 enforcement that in the end not only fail to achieve  
8 declared but limited goals, but also cast doubt upon  
9 the social utility of any form of government regulation  
10 as presently conceived and implemented in the North.

11 The case of regulation with  
12 respect to the Mackenzie River demonstrates the degree  
13 to which a regulatory system can become redundant and  
14 ineffective while at the same time firmly institution-  
15 alized. The Water Transport Committee of the Canadian  
16 Transport Commission is charged with regulating all  
17 vessels of over ten tons gross weight operating for  
18 hire or reward on the Mackenzie River and its  
19 tributaries. This mandate is both narrow and arbitrary.  
20 It excludes contract carriage; traffic with destinations  
21 beyond the mouth of the river, both west to the North  
22 Slope and east as far as Spence Bay; and it also  
23 excludes shipping on the Yukon River system or shallow  
24 draft traffic in Hudson Bay that are similar in nature  
25 to the Mackenzie trade.

26 Applicants for licenses to  
27 operate on the Mackenzie must furnish "details of the  
28 public necessity and convenience requiring the proposed  
29 service to be established." Under Section 27 of the  
30 National Transportation Act, the CTC may investigate



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1 and even disallow the acquisition of one company by  
2 another in the same business if "such acquisition will  
3 unduly restrict competition or otherwise be prejudicial  
4 to the public interest."

5 At the present time, this  
6 function is the only one of any significance performed  
7 by the staff of the Water Transport Committee. While  
8 they appear to administer the regulatory provisions  
9 with reasonable accuracy and efficiency in Ottawa,  
10 they have no field staff who might ensure compliance,  
11 nor can they do much about the myriad of loopholes in  
12 their governing statutes that are designed to protect  
13 the public interest by ensuring that there is in fact  
14 competition among carriers on the river.

15 The credibility of the entire  
16 exercise is undermined by the requirement that licenses  
17 be issued on an annual basis to each successful  
18 applicant. This is a redundant provision in the case  
19 of well established carriers such as NTCL, and places  
20 an unnecessary burden on both carriers and regulators,  
21 as well as generating a veritable mountain of paper  
22 each year.

23 In addition, the process of  
24 license granting has often been so slow, with blame  
25 on both sides, that carriers have started spring  
26 operations before their license applications have been  
27 approved. This hardly contributes the image of the  
28 Water Transport Committee as an effective regulator and  
29 no doubt provides good grounds for challenging them  
30 should they ever deny a license to a determined applicant.





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1                   In addition to the largely  
2 technical problems of this process there is also the  
3 question of whether the competition as it is supposed to  
4 foster really serves the public interest in attempting  
5 to, as a former chairman of the committee said in 1969,  
6 "keep operations from deteriorating to either of the  
7 two extremes of oversupply in services and cut-throat  
8 competition on the one hand or inadequate service and  
9 monopoly conditions on the other".

10                   The regulatory process does  
11 not properly distinguish service to communities a  
12 predictable annual requirement that may not be profit-  
13 able, from service to the hydrocarbon industry that has  
14 been a prime cause of the substantial increase in  
15 carriers on the river following the Prudhoe Bay discovery.  
16 It may, for example, be the case that the service to  
17 communities might best be served by regulated monopoly,  
18 rather than by regulated competition as presently  
19 required by the various transportation statutes.

20                   A third serious question about  
21 this whole process is whether in fact it works even  
22 within its own limited terms of reference for it looks  
23 very much as if the situation with marine transportation  
24 on the Mackenzie would have developed the way it has  
25 whether or not there was any system of federal regulation.  
26 Carriers have entered the Mackenzie trade on the promise  
27 of greatly expanded traffic if and when a pipeline  
28 is constructed and the Water Transport Committee has  
29 a singular lack of success in keeping carriers off the  
30 river, even when large corporations have clearly



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1 purchased smaller carriers with the sole intent of  
2 acquiring their licenses.

3                   Though such acquisitions carry  
4 no guarantee that a license will be renewed the committee  
5 to date has never refused one to a carrier obviously  
6 intent upon entering the Mackenzie trade. The main  
7 effect of the regulatory process has been to place  
8 a disproportionate financial and administrative burden  
9 upon the existing smaller carriers, often the ones  
10 providing essential services to northern communities.

11                   The main conclusion that one  
12 can draw from looking at this example of northern  
13 regulation is that the behavior of the regulators has  
14 been occasionally over-bureaucratic, but largely  
15 innocuous, redundant and unnecessary charge upon the  
16 public purse. The regulated carriers have pressed  
17 their views with characteristic vigour, but in the case  
18 of at least one of them, they have now abandoned the  
19 practice of opposing new practice applicants in front  
20 of the Water Transport Committee on the understandable  
21 grounds that even in the unlikely event that it was  
22 rejected, the applicant would go ahead anyway and move  
23 onto the river.

24                   The Committee has made reasonable  
25 efforts to treat each applicant equally and has on occasion  
26 held meetings in the west closer to the actual area  
27 of operations. Even then, however, an adversary  
28 proceedings before a regulatory board involves legal  
29 and travel costs that are more easily borne by large  
30 corporate carriers than small family ones. The only



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1 conclusion I can draw from an examination of the  
2 Mackenzie waterway is that the regulatory system works  
3 neither in theory to protect the public interest by  
4 fostering competition, nor in practice by regulating  
5 entry into the carriage trade on the Mackenzie. Given  
6 the size and strength of the companies now involved,  
7 and the potential profits to be realized from major  
8 energy developments, it is hard to see how any form  
9 of regulation could effectively protect the public  
10 interest, or more specifically the particular interest  
11 of Mackenzie Valley communities who rely heavily upon  
12 river carriers for regular supplies.

13 The second regulatory system  
14 I want to look at is that under the Territorial Land  
15 Use Regulations. The evidence below is based upon work  
16 undertaken by Peter Usher and myself in 1972 and 1973  
17 and published by the Canadian Arctic Resources Committee  
18 under the title "Land Regulation in the Canadian North,  
19 and on additional field work undertaken by Meish Podlog  
20 and myself in 1975 and 1976 and representing this rather  
21 copious volume sitting in front of me.

22 I do not propose to deal at  
23 any length with a detailed examination of either the  
24 administration or enforcement of the regulations but  
25 rather I want to look at the regulatory process in  
26 general, the behavior of the regulators and the regulated,  
27 the question of administrative justice and also the  
28 question of regulatory performance. I will then look  
29 briefly at recent proposed amendments to the Territorial  
30 Land Use Regulations and suggest some conclusions about





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1       them based upon the ones we reached in 1973 and  
2       additional conclusions amended by our current re-  
3       examination of the regulations.

4                       The main problem with the  
5       regulatory process in general is first of all as  
6       suggested earlier the degree to which northern  
7       development policy is implemented by regulation rather  
8       than legislation, and more particularly, the nature  
9       of the broad policy framework of which the Land Use  
10      Regulations are a part and within which they fit.

11                      There is to be sure a policy  
12      statement on northern development published as "Canada's  
13      North 1970-1980" but there is also a widespread feeling  
14      outside government and a feeling expressed many times  
15      in evidence before this Inquiry that in practice, the  
16      government pursues its declared priorities to the  
17      reverse order to that espoused. That is, the extraction  
18      of non-renewable resources takes precedence over the  
19      social concerns of northern people and the protection  
20      of the northern environment. If that is so, the Land  
21      Use Regulations as a prime component of environmental  
22      protection are compromised in their application right  
23      from the start.

24                      At the same time, some  
25      fundamental problems remain with the regulations  
26      themselves. While the presently proposed amendments  
27      are a distinct improvement over the original regulations,  
28      they still do not overcome two key problems identified  
29      by Professor Milton Freeman more than five years ago  
30      during the initial drafting phase for the regulations.



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1 He stated then that the proposed regulations "lack  
2 explicit guidelines to ensure adequate safeguard of the  
3 northern ecology" and shown an "Apparent lack of  
4 explicit provision for adequate consultation with  
5 legitimate northern native organizations and individuals  
6 before land use operations proceed."

7 These remain crucial concerns  
8 to the native people and their fears will not be allayed  
9 by amended regulations whose provisions on paper may  
10 appear superior to the original in the eyes of  
11 environmental lawyers and political scientists. Further  
12 doubt is cast upon the whole process by the lack of  
13 public participation as opposed to public response  
14 in the drafting of amendments to both the Land Use  
15 Regulations and the Canada Oil and Gas Land Regulations.

16 The fact that the energy  
17 industry has been consulted during the redrafting  
18 process, only adds to the feeling that they, and not  
19 the environment, are the real clients in this process  
20 and that their interest, rather than the public interest  
21 in environmental protection, is the one really being  
22 served. While it is true that in practice most land  
23 use applications have come from the energy industry,  
24 it is nevertheless a declared intent of the Land Use  
25 Regulations to protect northern lands from all users  
26 rather than to regulate a specific industry to its  
27 own long run economic advantage.  
28  
29  
30



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With respect to behavioural regulators, the greatest problem is still the governments of one Federal Department in the drafting, administration, enforcement and prosecution of violations under the regulations. The northern program of the Department of Indian & Northern Affairs is simultaneously charged with the promotion of resource development and the protection of the environment. There is a clear and demonstrable conflict of interests here, despite the suggestion by one former senior official that the two are natural candidates for joint administration since, and I quote,

"Without development there would be no environmental problem."

THE COMMISSIONER: You can't argue with that.

A     Indeed not, Mr. Commissioner. This particular official is now senior official for the Department of the Environment in her own home province. May its environment rest in peace.

A second problem that undermines the claim to serve the public interest is the continuing lack of participation in the process. This is true both internally and externally. Internally within government, the Land Use Advisory Committee continues to be dominated by DINA and officials from other federal departments, as well as the Territorial Government, still feel that their concerns and responsibilities are inadequately considered in the process of permit consideration, issuance and enforcement.



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Externally, the administration still refuses public access to the deliberations of the Land Use Advisory Committee even though it remains an unofficial body charged with providing the best advice available on each land use application. At the same time the government has refused to fund the community based Delta Land Use Committee or to take seriously the concerns it expresses on behalf of northern communities. On December 10, 1975, and again on January 10 this year, the Delta Land Use Committee, made up of representatives from Aklavik, Tuk, and Inuvik, expressed serious reservations about the long-term impact on the bluenose caribou herd of a Mobil Oil seismic program in the Anderson River area, just south of Cape Bathurst and west of Paulatuk. On February 21 the Paulatuk Hunters & Trappers Association again expressed fears about the program and recommended that,

"Mobil Oil is to shut down all seismic operations and to leave the area before and/or no later than the 1st day of March, 1976."

Despite this clearly expressed concern the government permitted the program to continue in an area of limited hydrocarbon potential, but close to the tree line and between the caribou and their calving grounds. As late as March 18th additional seismic mileage was approved by the Department of Indian & Northern Affairs and they were persuaded to shut down the program just five days later only when pressure from both communities and Territorial Government/<sup>game</sup> officials convinced them of the immediate threat the program





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posed to a herd that should begin calving in April.

While northerners remain isolated from the Land Use Advisory Committee, Indian Affairs still continues to hold occasional joint meetings with industry, who can be relied upon to press their own limited corporate interests rather than those of the natural environment whose protection is supposedly the rationale for the whole regulatory system. At the same time, the notorious secrecy of the energy industry, and government acquiescence in this situation seems at variance with the interest of environmental protection, which is often undermined by the duplication of such programs as seismic over the same areas by different companies.

The third fundamental problem with the behaviour of the regulators is their own background. The senior official in the system is designated as the engineer by the regulations, and an engineering background is specified in the job description. There seems to be little reason for this common bias, particularly in the regulation of environmental protection, and one wonders why a forestry or environmental science background might not be equal assets. At the same time other participants in the system have histories and experience that bias them towards the usual concerns of industry. The staff of the Regional Oil & Gas Conservation Engineer's Office come mostly from an industry background and from interviews conducted over the past two summers, clearly sympathize with the concerns of land use



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operators rather than those of environmentalists. Within the land use regulations administration there are people with similar backgrounds and among land use inspectors, a dearth of adequate training for their jobs. While a proper training program would be of some assistance, it remains a moot point as to how effective any system of regulation can possibly be over hundreds of operations, many of them highly mobile, covering hundreds and thousands of square miles. The cost of properly monitoring all operations even if skilled inspectors were available and backed up by environmentally knowledgeable and sympathetic administrators, would be simply prohibitive.

There is little that can be said about the behaviour of the regulated, mostly because of the cost and difficulty of obtaining direct information about it. There is, however, some evidence mostly gained from land use inspection reports and interviews with land use inspectors that suggests that the larger the operation or company involved, the more they tend or are able to treat the regulations as a minor hindrance and just one more cost of doing business in the north. There has been an overall improvement in the environmental sensitivity of land users and in the technology they employ to carry out their work. On the other hand, inspection reports continue to show carelessness, stupidity, and apparently flagrant violations of the regulations whenever compliance would involve more than a minor



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disruption to the program or time-table. Although one or two operators may deliberately disregard the regulations, it is more often the case that they and their field crews are by nature simply not attuned to working with environmental considerations in mind, and no amount of regulation is likely to change this deep-seated attitude in the immediate future.

Communications are often poor both technically and philosophically between operators and inspectors, and often it seems between the environmental staff and management of companies and their own field personnel. These problems are not helped by the disagreements and confusion seen among the various regulatory agencies involved in land use. The oil and gas people are clearly more sympathetic to the energy industry than those in the land use section directly responsible for administering the regulations. And the new requirement for concurrence by oil and gas conservation officers in the shutting down of oil rigs will only exacerbate the situation. In addition, it is not uncommon for representatives of different government agencies to visit the same worksite sometimes on consecutive days and usually with quite different perspectives and regulatory powers to administer. When one adds in the turnover in staff, even among land use people, and the different weight individual inspectors give to different aspects of a land use operation, it is perhaps not surprising that field management and crews are confused about what is required of them and tend to disregard conflicting environmentally based





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instructions in favor of conducting their affairs with previous experience, usually not in the north, has taught them is best.

As suggested above, in looking at the behaviour of the regulators, the key question in the area of administrative justice is the dominant role played by the Department of Indian & Northern Affairs in the administration and enforcement of the land use regulations. Northerners (and to a lesser extent environmentalists) who have the largest stake in the success of this regulatory system, feel quite strongly that DINA is not an unbiased assessor of land use applications and a sympathetic enforcer of environmental stipulations, but is rather an active supporter and in the case of Panarctic, an active partner, of corporate land users, particularly those from the energy industry. These fears are only heightened by inherent weaknesses in the appeal process from decisions by the DINA land use administration in Yellowknife. At a technical level, when land use is unsure about the approval of an application involving innovative techniques, the matter is usually referred to its own experts in Ottawa for a professional opinion. While this is an understandable practice, there is some evidence that this group is under pressure to respond positively to such innovations as multiplicity shooting, either from their departmental superiors or from their peer group in industry who are usually better informed and more current on the state of the art. When the legal route of appeal from a decision by the



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engineer also lies upwards through the department to the Minister of Indian & Northern Affairs, it is not surprising that northerners feel the cards to be stacked pretty heavily against their interests.

One matter that has been addressed in the revised regulations is that of the time period between receipt of an application and a decision on it. Section 25 of the revised regulations would now provide for a total of 52 days comprising 10 days for an initial response and 42 days for further consideration, if required. This increase from the original time of 30 days is a definite improvement, although work this summer in the Mackenzie Delta suggests that such an extension may not in itself have solved the problems originally thought to have originated with the limited period for decision-making. Two problems still remain with the consultation process over granting or withholding land use permits.



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1 One involves the time it takes  
2 to gather all relevant opinions, particularly from the  
3 people most likely to be affected, who many times are  
4 away from their communities living on the very land  
5 that is to be used in the proposed operation. Thirty  
6 days was often too little to consult with them,  
7 particularly as in practice the actual time between a  
8 community receiving details of an application and the  
9 time within which government requested a response  
10 was reduced on occasion to a matter of days rather than  
11 weeks.

12 The second problem, and one  
13 that is getting worse rather than better is that  
14 communities are now being swamped with applications and  
15 proposals about which they have very little technical  
16 knowledge and to which they are able to devote only  
17 a limited amount of time. This is precisely the problem  
18 the Delta Land Use Committee was designed to confront,  
19 but lack of funding for travel and expert assistance  
20 has left its members little better off than their  
21 counterparts in the settlements. Community councils  
22 have many other responsibilities in addition to the  
23 assessment of land use applications and merely providing  
24 them with edited versions of land use applications  
25 and asking for a response does not constitute what  
26 one would probably consider a due process of consul-  
27 tation.

28 In evaluating overall  
29 regulatory performance some persistent problems remain  
30 as well as parallels with similar difficulties in other



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1 northern regulatory systems such as the Northern Inland  
2 Waters Act and that on the Mackenzie River. Some of  
3 the problems are inherent in the very structure of the  
4 process. Land use inspectors who form the front line  
5 when it comes to effective enforcement are at the bottom  
6 of the Department of Indian and Northern Affairs  
7 hierarchy, an organization publicly committed to and  
8 deeply involved in the whole process of extracting  
9 northern resources. This cannot but place restraints  
10 on their freedom of action and combined with inadequate  
11 working conditions and poor promotion prospects has  
12 led to a generally low level of morale among the field  
13 staff.

14 Even when land use inspection  
15 reports indicate persistently poor performance by  
16 operators, there is rarely immediate action and always  
17 the fear that pressure on superiors will delay effective  
18 moves until the operation has been completed. The field  
19 staff are not properly trained for their role and in  
20 any case, it is for them usually only one among a  
21 variety of responsibilities they have. They  
22 understandably feel somewhat powerless in the face of  
23 large land uses who are much better informed than they  
24 are, and who receive direct and indirect support from  
25 their own superiors within the department.

26 Perhaps the greatest failing  
27 in the system lies with the final sanction of pro-  
28 secution. If there were a history of effective pro-  
29 secution of offenders along with heavy penalties, this  
30 would provide a powerful incentive for improved





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1 performance on the part of land use applicants. In  
2 fact, as one commentator has remarked, "Prosecutions  
3 for infringement of these regulations has proved to be  
4 a new endangered species in the North", and those  
5 prosecutions that have succeeded result in what amount  
6 to nominal fines for the offenders.

7 We conducted many interviews  
8 around this question over the past two summers in an  
9 effort to discover a reason for the paucity of pro-  
10 secutions in the face of substantial evidence of in-  
11 adequate performance originating in both inspection  
12 reports and interviews with field staff. A persistent  
13 problem and one evident from the inception of the  
14 Land Use Regulations is the attitude of DINA's senior  
15 officials in the North that prosecution of a violation  
16 of the regulations amounts to "an action which indicates  
17 the failure of the government to efficiently control  
18 orderly development".

19 If government is persuaded  
20 that violations of the regulations reflect poorly  
21 upon itself as well as upon the violators, it is not  
22 surprising that they should adopt an attitude towards  
23 them of "If you guys don't smarten up, we will charge  
24 you", rather than proceeding at once with the more  
25 effective but more public step of legal action. Attempts  
26 at such moral suasion by DINA administrators cut little  
27 ice with industry and undermine the authority of their  
28 own field staff who fear that their decisions in the  
29 field will not be supported by effective legal follow-up  
30 by their superiors.



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1 A second, and in some ways  
2 more profound difficulty arising from the attitude  
3 of senior government officials is that they have  
4 consistently taken the position that the onus of proof  
5 rests upon northerners rather than upon industry. In  
6 responding in Inuit Tapirisat's "Model for Community  
7 Participation under the Territorial Land Use  
8 Regulations", A. Digby Hunt, then Assistant Deputy-  
9 Minister in charge of DINA's northern program,  
10 repeatedly stressed that the success of the regulatory  
11 program depended upon native people clearly outlining  
12 areas of environmental sensitivity that they wished  
13 to see protected.

14 DINA officials now readily  
15 admit to the failure of their own attempt to establish  
16 terrain sensitivity ratings despite the considerable  
17 resources devoted to the effort. It is then, hardly  
18 surprising that northerners view the government's  
19 response to their proposal as grossly misplaced and  
20 reject the idea that they should bear the burden of  
21 proving that land use operations will do damage rather  
22 than industry bear the responsibility for proving that  
23 their operations will not.

24 Problems with the attitude  
25 of senior DINA officials are compounded by technical  
26 difficulties in the actual process of successful  
27 prosecution. The fact that they admit to trying to  
28 catch offenders on four or five counts before proceeding  
29 to law is testimony to the difficulties of inefficiency  
30 with which they gather evidence and put together a case.



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1 Most potential prosecutions never get beyond the Crown  
2 Attorney's Office for lack of admissible evidence.

3 Land use inspectors who gather  
4 it in the first place are poorly trained in this regard  
5 and supported by permit conditions often so poorly  
6 worded that they do not effectively apply to the  
7 individual operations they cover and provide little or  
8 no grounds for effective prosecution when they are  
9 violated. Indeed one Justice Department Official  
10 went so far as to suggest that "Often, if the operator  
11 carried out the conditions on a permit, it would cause  
12 more environmental damage than if they failed to comply  
13 with the conditions".

14 For a system of regulations  
15 to be effective at least three criteria must be met.  
16 One is that at the outset there be a clearly established  
17 policy, preferably laid out in the statute under which  
18 the regulations are to be made, that gives guidance and  
19 direction to those charged with administering the  
20 regulatory system and enforcing its stipulations.

21 The second requirements is that  
22 the regulations themselves be clear, unambiguous  
23 directions to both the regulators and the regulated  
24 on how the policy is to be implemented in practice to  
25 realize the goals laid out in the governing statute.  
26 The third requirement is that there be adequate en-  
27 forcement in the field, supported by vigorous prosecution  
28 of violators. I have suggested in the case of the  
29 Mackenzie River that apart from the rather general  
30 goal of serving the public interest, there is no clear





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1 policy on how the river carriage trades should operate.  
2 There is an inadequate and leaky set of regulations  
3 for the Water Transport Committee to administer and  
4 in reality there is no enforcement whatsoever of its  
5 decisions and no means of bringing violations to heel.  
6 I might add that the Water Transport Committee has no  
7 enforcement staff at all.

8 In the more important case  
9 of the Territorial Land Use Regulations, there is ample  
10 evidence to indicate that the Federal Government and  
11 particularly the Department of Indian and Northern  
12 Affairs is at the very least ambivalent in its attitude  
13 towards protection of the northern environment against  
14 the degradations of industrial land use. As to the  
15 second criteria suggested above, it has already been  
16 noted that the regulations themselves are inadequate,  
17 even on paper to the task of protecting the northern  
18 environment. The proposed amendments now in the final  
19 stages of approval by the Justice Department are clearly  
20 an improvement in this respect and meet a number of the  
21 objections raised by the Canadian Arctic Resources  
22 Committee both to the original regulations and to early  
23 drafts of the amendments.

24 On the other hand, they still  
25 fail to satisfy the fundamental questions raised by  
26 Freeman in 1971. Perhaps most important of all, they  
27 have still to be brought into effect almost five years  
28 after promulgation of the original regulations. These  
29 were recognized to be inadequate even within the  
30 Department of Indian Affairs at least three years ago



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1 and amendments have been promised momentarily ever since.  
2 If this sort of record were to be repeated in the case  
3 of any regulatory provisions covering construction of  
4 the Mackenzie Valley Pipeline, the results would be  
5 both futile and disastrous.

6 In the 1973 report on the  
7 regulations by Peter Usher and myself, we made twenty-  
8 three specific recommendations with respect to the Land  
9 Use Regulations. I have suggested already that the  
10 regulations lack clear policy guidance and support,  
11 are too limited in scope, and are in themselves in-  
12 adequate even on paper to the task of environmental  
13 protection.

14 The bulk of the recent work  
15 by Meish Podlog and myself has been concerned with  
16 the third criteria, that of adequate enforcement and  
17 leads to the conclusion that whatever the state of the  
18 policy and the regulations themselves, the state of  
19 field enforcement is a rather sorry and ineffectual  
20 one. These distinctions should, however, be viewed  
21 more as useful ways of analyzing the situation, than  
22 as guidelines for distinct and separate changes in  
23 either the administration or enforcement of the Land  
24 Use Regulations.



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1 In the long run, a perfect  
2 set of regulations derived from a clear statement of  
3 policy are no more socially useful if inadequately  
4 enforced, than an indifferent and flawed set of  
5 regulations that are nevertheless enforced with vigour  
6 and energy wherever and whenever possible. The two,  
7 legislation and enforcement, go hand in hand, and it  
8 is with this in mind that I would like to look very  
9 briefly at the 1973 recommendations placed in the  
10 context of what we now know about the administration  
11 and enforcement of the regulations in the ensuing  
12 three years. Our earlier recommendations were:

- 13 1. "In the long run conservation legislation  
14 should not be under the sole control of  
15 a government department whose major and  
16 legitimate interest is the promotion  
17 of northern resource development. In  
18 the interim, if the Department of Indian  
19 Affairs and Northern Development continues  
20 to administer the regulations, then their  
21 enforcement should be entrusted to a  
22 separate and independent agency. One  
23 immediate solution would be to transfer  
24 the Northwest Lands and Forst Service  
25 to the Department of the Environment."

26 There have been no transfers of jurisdiction over  
27 the northern environment since 1973 and DINA remains  
28 the dominant department with respect to both develop-  
29 ment and environmental protection. Though I am less  
30 sanguine now about transferring jurisdiction to



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1 Environment Canada, an enforcement agency independent  
2 of DINA holds out some promise for a system in which  
3 justice is both done and seem to be done to the concept  
4 of environmental protection. Recommendation 2.

- 5 2. "A concise preamble, stating the purposes,  
6 philosophy and goals of land management and  
7 environmental protection in the north should  
8 be added to the Territorial Lands Act and/or  
9 its regulations. Such a statement would  
10 remove the confusion which surrounds the  
11 scope and purposes of the regulations, and  
12 make it easier for all concerned to judge  
13 the effectiveness of the regulations and to  
14 decide what other legislation might be  
15 necessary. A preamble of this nature would  
16 also provide a basis for judicial review  
17 of administrative decisions made under  
18 provisions of the Act and Regulations."

19 The situation remains unchanged since 1973 and there  
20 is still no preamble.

- 21 3. "Notwithstanding the foregoing, we believe  
22 it is already apparent that specific legis-  
23 lation is required for the protection of  
24 wildlife resources, and that a land settle-  
25 ment be made with native northerners which  
26 would allow them substantial control over  
27 land use."

28 No changes have been made in this respect and fish  
29 and wildlife are still mentioned only incidentally  
30 in the proposed reviewed regulations. It was noted in





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1 1973 that the regulations were established primarily  
2 to protect habitat, and subsequent experience has  
3 served to reinforce the conclusion that the protection  
4 of habitat does not equal the protection of wildlife.  
5 The philosophy that game will be protected by pro-  
6 tecting their habitat is clearly inadequate in such  
7 cases as low flying aircraft which disturb animals  
8 without materially affecting their habitat. The mere  
9 presence for example of seismic activity can scare  
10 animals without directly affecting their habitat.  
11 What is needed is some direct protection of wildlife  
12 from the stresses that result from a combination of  
13 noise, scents and land use operations in general.

- 14 4. "There should be expanded research efforts  
15 designed to provide an information base  
16 directly related to the regulation of land  
17 and water use."

18 There have been substantial research efforts under-  
19 taken in the past three years, though not directly  
20 related to regulation and rarely dealing directly  
21 with the question of aggregate or cumulative impact.  
22 Most of them have been undertaken as survey studies  
23 by government or Land Use and Occupancy studies con-  
24 ducted by native people. There is little evidence that  
25 these studies have found their way into any modified  
26 system of land or water use regulation.

- 27 5. "Administration of the Land Use Regulations  
28 should be separated from that of the Northern  
29 Inland Waters Act."

30 They are both still administered by the same bureaucracy



Beakhust, Zemanskv  
In Chief

1 here in Yellowknife.

- 2 6. "The definition of a land use operation under  
3 the Regulations should be broadened to include  
4 the use of lighter vehicles."

5 This will be accomplished in the proposed amendments.

- 6 7. "Permit applications should be required, and  
7 processed at an earlier state of operations."

8 The scope of the proposed amendments now formally  
9 covers most staging operations. There are however,  
10 still instances of operators proceeding prior to  
11 issuance of a permit. There have also been cases like  
12 the one mentioned before you in Aklavik in April of  
13 last year, in which notice of a proposed operation  
14 was received by the community council that the deadline  
15 for response set by the government was the day before  
16 the letter reached them. The thirty day waiting period  
17 between application and decision has not been at least  
18 doubled to overcome such situations, but has been  
19 extended to a 10 day initial decision period with an  
20 additional 42 days if further consideration is required.  
21 Section 25(3) of the proposed amendments, does, however,  
22 extend the period during which the engineer may order  
23 additional studies or investigations from six months  
24 to twelve.

- 25 8. "Every applicant should be required to submit  
26 an environmental impact statement for his  
27 operation."

28 Although the situation remains unchanged and statements  
29 may still only be required at the discretion of the  
30 engineer, this recommendation no longer seems useful.



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Communities like Sachs Harbour and Tuk have by now had extensive experience with seismic operations and do not feel the need to monitor every operation of this nature. They are much more concerned about novel types or styles of land use operation which might have new and unexpected impacts. The need now is to develop criteria for judging which applications depart significantly from those which communities are already familiar with, in order that they might devote their attention to reviewing the applications in detail and monitoring the operations in practice.

9. "In the immediate future the Land Use

Advisory Committee should be expanded into a public group or forum."

This has not happened and the committee continues to function much as it did in 1973.

10. "Regional Land Use Committees should be

established to enable communities to par-

ticipate more directly in the review process."

The Delta Land Use Committee that I referred to above, was formed by Aklavik, Inuvik and Tuk in December of 1974 and represented in attempts to provide just such a forum for the review of land use applications. The committee is made up of three or four representatives from each community and has tried to meet at least once a month. In practice it has had limited impact and has been unable to meet regularly for lack of government funds to cover travel costs. Additional problems include, opposition from the DINA administration in Yellowknife, the lack of any statutory standing





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1 for any comments or recommendations the committee might  
2 make, the limited time in which to review applications  
3 and overall, the sheer number and complexity of  
4 applications received. Lack of funding has left the  
5 committee with no technical assistance apart from  
6 that available through COPE AND CARC.

7 The recommendations that  
8 we made in 1973 is if anything, more significant now  
9 that the scope of the regulations has been extended  
10 to cover the whole of the N.W.T. including areas with  
11 which the DINA administration here in Yellowknife is  
12 quite unfamiliar.

13 11. "The provisions postponing decision on  
14 application -- on applications should be  
15 used much more liberally, as should the  
16 pre-permit inspection provisions."

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There has been very little change in this over the past three years.

12. "The present one-way right of appeal ... should be extended to those who object to the granting of a permit as well as to those whose applications have been refused."

No action has been taken in this respect. Although anyone with standing is free to appeal to the Minister against a decision granting a permit, their position would be somewhat strengthened were that right specifically granted in the regulations.

13. "Consultation should cease to consist of government officials trying to persuade the people of the benefits resource development can bring. Communities should always be represented by their organizations and/or counsel when talking to the government and permit applicants. The regulations should be amended to give northerners a statutory right to participate in the process and social and wildlife provisions should be written into the regulations as obligatory requirements for permits rather than as discretionary and informal ones."

This was a crucial recommendation three years ago, and while there is some evidence of sympathy by DINA field staff, the approach criticized in 1973 is still the one usually adopted by DINA's more senior officials. None of these suggestions have been implemented. The question of participation is critical, not only to the



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Territorial Land Use Regulations, but to any regulatory system that respects the lives and lands of northerners. In any regulatory provisions established to control the construction of a Mackenzie Valley Pipeline, northerners must be granted a statutory right to participate at both administrative and enforcement levels; such rights must be made effective by provisions that prevent any phase of the operation from proceeding, in the face of their unanimous opposition; they must be granted sufficient funding to provide their own technical, legal and monitoring staff; and there must be provisions for the vigorous prosecution of offences without which neither the regulations nor the participation of northerners would make very much sense.

14. "The Settlement Councils should receive far more complete information on permit applications. They should also be provided with funds to hire technical and legal experts to assist in their evaluation of applications."

They do now usually receive an adequate synopsis of applications. Experience in the past few years has better equipped communities to deal with many applications but government has never provided them with the kind of funds we recommended. The only assistance to date has been from the CARC field worker program.

15. "Full minutes should be kept of all Land Use Advisory Committee meetings and a complete report from the committee should be forwarded to Settlement Councils."

The minutes are still brief, uninformative and confidential.



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16. "The job classification of the engineer should be opened up to permit an ecologist, forester or other environmentalist to occupy the central position rather than only a qualified engineer."

The reorganization of the northern program has changed somewhat the role played by the engineer in 1973, and the present occupant of the position is a former member of the enforcement staff rather than an administrator, This recommendation was intended, however, to get at what we found to be an attitude rather than a qualification, and there is little recent evidence to suggest that the department as a whole is any less sympathetic towards industry and more sympathetic towards the environment than it was three years ago.

17. "Much greater use should be made of native people for inspection and enforcement."

There are presently six native people still employed by the Northwest or the Yukon Lands & Forest Services out of the eight who began the native land use inspector training program in 1974. All are still in various stages of training and none of them are in senior positions. The hostility of DINA staff both in Yellowknife and in the field have done little to resolve the conflicting loyalties these people feel between their community and government roles. Overall, the hope that environmental protection might be substantially transferred to the hands of northern people themselves has not been realized.

18. "Land use inspectors should be given the power to suspend land use operations on their own authority."





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This power would be granted to inspectors under Section 42 of the amended regulations. It represents a distinct improvement over the 1973 situation, but our subsequent research has pin-pointed and clarified in some detail the personal and systemic limitations that restrict the discretion of individual inspectors. These would undoubtedly affect any inspection staff operating under pipeline construction regulations, and in practice they would serve to operate -- they would serve to limit the degree to which inspectors would feel able to close down part or all of the operation.

19. "Cleanup problems should be fully anticipated, and cleanup procedures fully incorporated into the original land use permit. In all cases, the final version of every permit should be sent to the interested Settlement Council automatically and should be considered a public document freely available to any interested party."

Final permits have been forwarded to communities since about January of last year. While the amended regulations do incorporate ordinary post-operation cleanup procedures, this recommendation was also aimed at the problem of accidental problems such as oil spills. The regulations should provide not only for an operator's financial responsibility in the case of an accident, but also for his operational responsibility to rectify it as soon as possible. While a withheld performance bond might help the financial situation of the public treasury, it does little to help the trapper whose land is being polluted by chronic oil spills. The amended regulations



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say little about contingency planning for the cleanup of accidents, and our recent research has indicated continuing problems with the enforcement of even standard cleanup provisions that can be anticipated for most operations.

20. "A satisfactory final inspection report should be mandatory prior to issuing an operator any new permits."

This has not been implemented and operators who have failed to complete and clean up one site are still routinely granted permits for other operations in other locations.

21. "Security deposits should be mandatory and the ceiling of \$100,000 raised."

Security deposits are still discretionary, the ceiling remains at \$100,000, and while deposits have on occasion been withheld for periods of time, none has ever been forfeited.

22. "The penalty provisions of the regulations should be rigorously enforced to the maximum provided for in the Act."

The maximums themselves remain far too low and very few successful prosecutions have taken place. In most cases where prosecution promises to be successful, operators have settled out of Court or put up little resistance in the face of the minimum penalties likely to ensue and the possibly detrimental publicity likely to follow from a protracted legal battle.

- 23 (and final recommendation).

"A comprehensive and equitable system of



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compensation for trappers and hunters for damage resulting from resource exploration activity should be implemented immediately."

Compensation has on occasion been offered, but it is not a statutory requirement and in most cases has been very minimal and inadequate.

It has not been my intention in this evidence, Mr. Commissioner, to produce a litany of inadequacy and failure with respect to the regulation of northern development, although that would be a fair conclusion to draw from the evidence. Nor is it, I think, sufficient to use the evidence as support for a "Throw the rascals out" attitude towards the Department of Indian & Northern Affairs. What is more useful and what you are charged with undertaking is an examination of what should be done in the case of the proposed Mackenzie Valley Gas Pipeline, far and away the largest single land use operation ever proposed for the north. Two sorts of conclusion emerge, I think, from my own work. The first and more obvious one with respect to regulation is that at the very outset of any undertaking such as the pipeline, one must have clear and unambiguous policy guidelines, a coherent and watertight set of regulations, and firm and effective enforcement. The Territorial Land Use Regulations are now almost five years old, and in all three areas there are still some glaring inadequacies. In the case of the proposed pipeline there will be no time for experimentation, no period to test the efficacy of the system and make necessary improvements





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and adjustments to it. In short, the regulations governing the pipeline must be right the first time and properly enforced from day 1.

The second kind of conclusion is more speculative. It is that we should perhaps reconsider the whole question of regulation as an appropriate tool for achieving the goals in mind for the Mackenzie Valley or for the north as a whole. The demonstrable failures of the regulatory system lead not only to arguments for particular improvements, but also to the conclusion that government regulation alone is not and cannot be an effective tool for guiding the future of a great river valley and its people. The history of the land use regulations and to a lesser extent that of the Mackenzie waterway, indicates that people who rely heavily upon the natural environment for their physical, psychological and spiritual survival cannot depend upon the Federal Government to protect their long-term interests. The only way to protect these interests is to gain as much control over their environment as possible through land selection withdrawal, and through guaranteed rights to participate in major decisions about the use and disposition of all northern lands.

In 1973 we suggested three principles that,

"must guide the administration and enforcement of all laws and regulations regarding land use in the north."

Granted that regulations cannot cover every contingency,



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and cannot guarantee the rights of northerners and their environment, these principles represent the spirit that must still be followed in the case of any legislation governing construction and operation of a Mackenzie Valley Pipeline. These principles are:

1. "Where there is any dispute regarding the possible impact of any proposed activity on terrain or wildlife, the onus must always be on resource development corporations to prove to the satisfaction of the traditional users of the land that their proposed activity is not detrimental to the latter's interest. It follows that all regulations should err on the side of caution, specifically as related to native people and secondarily by environmentalists. Increasing permissiveness of regulations is justified only by sound research which demonstrates that environmental damage is either non-existent or within limits acceptable to traditional users."
2. "Prior to approving any activity, the government must be in a position to guarantee effective regulation and enforcement of this activity, and demonstrate its ability to cope with any reasonably foreseeable consequence of it. The excuse that intentions were good but certain protective measures turned out to be impossible is entirely unacceptable. Unless the government is prepared to make good on its assurances, it has no basis for allowing activity to proceed."







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3. "There must be an unqualified commitment by government to full dissemination of information and to adequate public involvement in decision-making. Adequate in this case would be defined by the public affected, not by the government. Government officials should abandon the idea that public involvement is a nuisance which prevents them from getting on with their jobs."

The Territorial Land Use

Regulations are the most important piece of environmental legislation applying to the north and have been in force for almost five years. The weight of available evidence is that both in theory and practice they still fall far short of these principles. At every stage the balance of probabilities is tipped in favor of land use operators, whether that be in the regulations themselves or in their administration and enforcement. The regulations say little or nothing about fish and wildlife base upon which northerners directly depend. The fact is, as we suggested in 1973, that the regulations reflect the inherent environmental concerns of southern conservationists rather than the immediate needs of northern native people; and at that, even given their limited scope, they are still poorly administer and inadequately enforced. From the mass of evidence we have gathered with respect to the regulations there is virtually nothing to suggest that the much vaunted concept of multiple use operates effectively to the mutual benefit of all concerned; indeed, even in principle, it is easy to see that the concept is





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only viable from a certain kind of perspective. If, for example, one is engaged in cutting seismic lines, the proximity of a trapline is little hindrance and a perfectly alternative land use. If on the other hand one were to ask a trapper what he thought of the compatibility of seismic operations with his own work, a rather different response would be forthcoming.

Mr. Commissioner, I can see only one way to proceed if one is seriously concerned about protecting the future of the Mackenzie, its flora, its fauna, and its people. That is to withdraw certain lands entirely from industrial development. Some should be set aside as ecological preserves and some as lands clearly assigned to native people for their own use without even the possibility of expropriation for industrial purposes. It would then be up to them to decide what other uses, industrial or otherwise, might be compatible with their own aspirations for the land and I think we must accept at the outset that in certain areas like Cape Bathurst, no other use is compatible with the traditional use of the land. In the final analysis, government regulation, even environmentally and socially sympathetic regulation applying some kind of multiple use concept cannot offer the protection that the environment and the people of the north must have. That can only be achieved if the power to decide is in their hands, and that in turn will only happen when lands identified as crucial to their survival have been withdrawn entirely from industrial initiative.



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Regulation would then assume a more rational and limited role, that of minimizing the impact of industrial development over lands which northerners and to a lesser extent environmentalists are prepared to see it proceed. Even in these areas northerners should have a much greater say than they do today in the administration and enforcement of the Territorial Land Use Regulations. They should have, as I suggested earlier,

(1) statutory rights to participate in the drafting, administration and enforcement of any land use regulations;

(2) in certain cases, a right of veto;

(3) sufficient independent funding to give substance to their role;

(4) overall Statute that provides for enforcement which goes beyond nominal fines to the actual incarceration of those who break the law or the senior officials of companies who are legally responsible for its infringement. These are minimum criteria that must be met in the regulation of land use across the north. They apply equally and especially to the construction, operation and abandonment of any pipeline along the Mackenzie Valley.

THE COMMISSIONER: Just so I understand the thrust of your paper, you're appearing for COPE. But you're with CARC too, aren't you, Mr. Beakhust?

A No sir, I'm with York University.



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Q Oh, I see.

A I have occasionally done work for the Canadian Arctic Resources Committee, but that should not be taken in any way to mean that I support all of the evidence that they have given.

Q No, no. Well, you're really saying that with respect to certain geographical areas, the whole panoply of regulatory machinery on the basis of past experience, given the nature of northern terrain and the uses of land that -- to which northern people subject it, that with respect to these certain geographic areas some should be withdrawn from industrial development. Now, that's a matter contemplated by the pipeline guidelines. You may recollect that guideline 4 proposes that the government will exclude certain areas from any oil and gas pipeline and related development.

Your other proposition was that certain other geographical areas relied on by the native people can only be protected if the native people have the right to determine what activities will take place in what geographic areas.





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1 I think I should have said  
2 to CARC to Mr. Evans last night but I will say it  
3 to you, Mr. Bayly, in the hopes that it will reach  
4 them. They called a good deal of evidence about the  
5 North Slope of the Yukon, the northern Yukon. They  
6 adduced evidence of Whitehorse last summer in support  
7 of the proposition that there should be an international  
8 wildlife range comprising what is now known as the  
9 Arctic National Wildlife Range in northeast Alaska  
10 and the northern Yukon. We're all familiar with the  
11 map.

12 The proposal is one that's  
13 been outstanding for half a dozen years and received  
14 its thrust from the conference held in Whitehorse  
15 two years ago, I believe. Well, something that Mr.  
16 Veale should address his mind to on behalf of the  
17 people of Old Crow and ~~that~~ CARC should address its  
18 mind to in support of this proposition, there should  
19 be an international wildlife range in both countries  
20 encompassing land in both countries. The people of  
21 Old Crow want proposition B from your paper. They  
22 say, "Well, let us control all land use in the northern  
23 Yukon; then we'll protect the caribou herd".

24 CARC says, "Designate the  
25 thing as an international wildlife range", which of  
26 course means that the Department of Indian Affairs  
27 and Northern Development is charged with the duty of  
28 looking after parts and so forth and so on. The  
29 Territorial Government of the Yukon and perhaps an  
30 international authority would be responsible for the



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1 preservation of environmental values within that area.

2 Is there any inconsistency  
3 between the views expressed by the people of Old Crow  
4 and the Council of Yukon Indians and the views expressed  
5 by CARC and by yourself to date, sir? You've separated  
6 these. That happens to be a geographical area where  
7 both propositions have in a sense been urged. I hope  
8 I'm making myself clear. I appreciate your paper.  
9 It's very helpful. Well, Mr. Scott, would you hate me  
10 if I suggested we take a three or four minute break?

11 MR. SCOTT: Not at all, sir.

12 THE COMMISSIONER: All right.

13 A Are you asking me to  
14 comment on that after the break or--

15 Q Sure. By all means.

16 (PROCEEDINGS ADJOURNED FOR A FEW MINUTES)

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(PROCEEDINGS RESUMED PURSUANT TO ADJOURNMENT)

MR. BAYLY: I'm sorry, before we begin Mr. Zemansky's evidence, I think Mr. Beakhust has some comments on the question that you had raised just before coffee, on the wildlife range as opposed to --

MR. BEAKHUST: A Yes, Mr. Commissioner, I wouldn't want to restrict my comments specifically to the International Wildlife range, but to the question of land selection generally and in referring to the Nunavut proposal, I will think you will find in that proposal, that the Inuit people conceive of no conflict of interest between parks and traditional land use and although I should say that I'm not an expert on either in the question of National Parks or certainly anything to do with the north slope, my feeling would be that there would be no incompatibility between what we traditionally feel of as a park in that area and traditional land use. I think the incompatibility is between traditional land use and park use together as a group of industrial use and really I think the native people themselves do not see any inherent incompatibility.

THE COMMISSIONER: That may be so. It is a fact as well, that the group that met at Whitehorse to propose the establishment of the International Park acknowledged that the people of Old Crow should have the right to continue to hunt and fish for subsistence throughout the park. So far as the land claims proposals extend beyond what we



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1 lawyers call usually fluxuary rights and contemplate  
2 a measure of proprietry rights. There may be a conflict,  
3 that's what I was getting at. At any rate, you all  
4 might reflect upon it and -- and you might Miss Hut-  
5 chinson, make sure that this discussion that we're  
6 having, if the reporters can just photostat these  
7 few pages just before the adjournment and after my  
8 discussion with Mr. Beakhust, send it to Mr. Veale  
9 Mr. Anthony, Mr. Evans, and anybody else that isn't  
10 here. And Mr. Bell, right. Okay.

11 MR. BAYLY: I wonder if we  
12 could continue then with Mr. Zemansky's evidence.  
13 Could I ask you to turn to the first page and read  
14 your evidence into the record Mr. Zemansky?

15 WITNESS ZEMANSKY:  
Okay. I'd like to  
16 preface my remarks by saying that I appreciate the  
17 opportunity to testify and also that it may be  
18 appropriate that I be one of the last to testify,  
19 since by virtue of my last name I've been in that  
20 position many times. There are also typographical  
21 corrections that I'll try and make as I go through.  
22 It is a well documented fact that non-compliance with  
23 environmental stipulations and laws during construction  
24 of the Trans-Alaska Oil Pipeline has been and continues  
25 to be widespread, unnecessary and complicated by lack  
26 of adequate government surveillance and enforcement.  
27 Non-compliance has ranged across nearly the entire  
28 spectrum of environmental stipulations and laws. The  
29 quality of documentation varies from measurements  
30 which could be used to prove a case in court, or which





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1 would be submitted to the professional journal for  
2 publication to observations, speculations or opinions  
3 of surveillance personnel and even pipeline workers.  
4 In some cases, correspondence from employees of the  
5 Alyeska Pipeline Service Company are a self-indictment.  
6 To the unbiased, the documentation is strongly per-  
7 suasive from the standpoint of logic and good  
8 engineering practice, compliance with legal require-  
9 ments and protection of the environment.

10 The identification and  
11 correction of environmental problems has been hampered  
12 by lack of baseline data, inadequate surveillance, and  
13 apparent lack of commitment on the part of both  
14 government and industry to the job with the minimum  
15 adverse environmental impact. Although improvement  
16 has been noted in some chronic problem areas, it has  
17 generally been slow in coming, is forthcoming only after  
18 a crisis situation develops and may only be temporary  
19 unless surveillance pressure is continually applied.

20 Despite the magnitude of the  
21 project, the controversy which preceded authorization,  
22 and the fact that construction is taking place almost  
23 entirely on public lands and ostensibly for reasons  
24 of natural interest, the public has been generally  
25 excluded from access to information concerning what  
26 is transpiring from Valdez to Prudhoe Bay, other than  
27 the pious pronouncements of Alyeska's public relations  
28 department. All this leads to serious questions re-  
29 garding just exactly what is the public interest in  
30 this case and is it being served? Those questions are



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1        accentuated by the apparent disregard for Freedom of  
2        Information laws by some of the key government agencies  
3        involved, and I only say apparent, because it has not  
4        yet been proved in court, but in my opinion, there  
5        is no discussion on that point. There has been very  
6        flagrant violation of the state and federal  
7        information laws that apply.

8                        The range of environmental  
9        non-compliance is so encompassing and the bulk of  
10       documentation is so great that it is only possible to  
11       touch on a few selected examples in a paper of limited  
12       length such as this.

13                      Sinc we're talking about oil  
14       companies building a pipeline to transport that  
15       commodity, let's start with a breif discussion of oil  
16       handling and mishandling on the pipeline to date.

17                      Government agencies concerned  
18       with oil handling during the construction phase of  
19       the project are as follows:

20                      The Alaska Department of Environmental Conserva-  
21       tion DEC, which has statutory authority to protect  
22       the environment from oil pollution on the state level.

23                      The Alaska Department of Labour which has statu-  
24       tory authority to protect worker safety through the  
25       Alaska General Safety Code and which has -- that code  
26       has a section on flammable liquids storage.

27                      The Alaska Pipeline Office, which has a responsi-  
28       bility under the U. S. Department of the Interior for  
29       enforcing Right-Of-Way Agreement stipulations on  
30       federal lands.



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1 Joint State, Federal Fish and Wildlife Advisory  
2 Team, which provides advice to the APO and the State  
3 Pipeline Co-ordinators Office concerning protection  
4 of fish and wildlife and includes personnel from the  
5 Alaska Department of Fish and Game. National Fisheries  
6 Service, and the U. S. Fish and Wildlife Service.

7 State Pipeline Co-ordinator's Office, which has  
8 the responsibility for enforcing Right-of-Way Lease  
9 stipulations on state land.

10 The U. S. Environmental Protection Agency which  
11 has statutory authority under the Federal Water  
12 Pollution Control Act to protect navigable waters  
13 from oil pollution.

14 If it would be okay, I would skip reading the  
15 detailed laws and stipulations and just sum them up.  
16 They're quite explicit I feel and they put out very  
17 definite prohibitions against the discharge of oil  
18 to the environment.

19 The above stipulations and  
20 laws taking as a whole, prohibit the discharge of oil  
21 to land or water except in specifically controlled  
22 circumstances, such as surface oiling of roads for  
23 dust control, a procedure which has proven to be of  
24 questionable utility on this project.

25 Planning to prevent spills  
26 and provide for containment and clean up of spills  
27 is required. Spills that do occur must be reported  
28 immediately. The rationale for these stipulations  
29 and laws is to protect the public health or welfare  
30 of the United States, including the environment.





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1 In sufficiently high concentrations, oil is toxic  
2 to both flora and fauna; however, specific toxicity  
3 data for various types of oil to Arctic species is  
4 notably lacking. For example, I would appreciate it  
5 if maybe someone here from one of the Energy Companies  
6 might be able to tell me, the mean toxicity level for  
7 Arctic diesel oil to several Arctic species, such as  
8 char, grayling or salmon. I've been unable to get  
9 that information from any of the literature or by  
10 biologists working in the field.

11 MR. ZISKROUT: I don't have  
12 any of that information available.

13 WITNESS ZEMANSKY:  
Some of these stipulations  
14 and laws are relatively new, however, they were in  
15 existence when Alyeska signed the contracts in 1974  
16 agreeing to comply with them. Furthermore, they amount  
17 to nothing more than good engineering practice.

18 You might logically speculate  
19 that the one thing oil companies would know how to do  
20 is handle oil. It would also be logical to assume  
21 that it was in the best interest of all concerned  
22 to prevent spills. Spilled oil can not be used for  
23 intended construction purposes. The record as with  
24 other aspects of this project, doesn't substantiate  
25 logic.



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1                   The first significant oil  
2 spill recorded on a pipeline system occurred at Happy  
3 Valley construction camp during breakup in 1972. It  
4 was a portent of bigger things to come. The Happy  
5 Valley camp at that time was one of those initially  
6 constructed in haste in 1970 when authorizations for  
7 construction seemed imminent. Design deficiencies  
8 were soon evident. The spill attracted some degree  
9 of attention and was finally investigated by the EPA.  
10 The EPA investigation revealed several disturbing  
11 facts:

- 12 1. The source of leaking diesel oil was a small  
13 diameter distribution line buried without protection  
14 in the camp pad;
- 15 2. It was impossible to accurately determine how  
16 much oil had leaked. Records of usage were not  
17 kept and the oil was stored in bladder tanks without  
18 gauges. Alyeska estimated the oil leak at "possibly  
19 200 gallons". The EPA estimate was "more than  
20 1,000 gallons".
- 21 3. Oil was first detected entering the adjacent  
22 Happy Valley Creek about the 15th of June, 1972.  
23 Alyeska containment and clean-up action was  
24 inadequate. The EPA recommended action taken  
25 during the period 25-27 July, 1972 helped to  
26 reduce the amount of oil in the creek. During  
27 that time frame some 200 gallons of oil were  
28 recovered.

29                   At the time, the U. S. Bureau  
30 of Land Management was responsible for protection of



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1 federal lands along the projected pipeline route. The  
2 EPA made recommendations to the Bureau of Land  
3 Management for improvements including:

- 4 1. The removal of buried fuel lines and placement  
5 of fuel lines in above ground utilidor;
- 6 2. Construction of imperviously lined dikes around  
7 bladder tanks which would be of sufficient capacity  
8 to hold 110 percent of the tank capacity plus  
9 additional volume for anticipated precipitation;
- 10 3. Replacement of bladder tanks with steel tanks;
- 11 4. Institution of routine inspection checks and  
12 pressure checks;
- 13 5. Preparation of spill prevention control and  
14 countermeasure plans and installation of bladder  
15 tank gauges;
- 16 6. The immediate reporting of all spills.

17 What became of these  
18 recommendations is unknown. It is obvious and most  
19 unfortunate that they were not heeded. If they had  
20 been, similar spills which have occurred and continue  
21 to occur each year since then might have been avoided.

22 The environmental impact of  
23 the spill? Normally on this project, no one takes  
24 the effort to go out and measure. This time the  
25 U. S. Geological Survey did. The presence of oil in  
26 the creek was confirmed. Also confirmed was a "total  
27 reduction in abundance of aquatic and organisms ",  
28 downstream of the spill by mid-August, 1972. It was  
29 noted, however, that sewage was seeping into the creek  
30 in the vicinity of the oil leak, which was also an



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1 illegal act and that, therefore, toxicity might have  
2 been the result of synergy.

3 With construction authorization  
4 the tempo picked up. Just about everybody recognized  
5 the situation to be unsatisfactory by the spring of  
6 1974, even the Federal-Alaska Pipeline Office. In a  
7 letter discussing deficiencies with sewage and solid  
8 waste disposal, the APO noted that "fuel handling  
9 procedures are similarly generally unsatisfactory".  
10 Alyeska responded with an acknowledgement of the  
11 problems and promised that "Inadequacies in our  
12 present handling of fuel are being rectified". They've  
13 had occasion to make similar promises just about every  
14 year since then. Much rectification was necessary.  
15 While the letters were being exchanged another sig-  
16 nificant spill was surfacing from beneath the melting  
17 snow at Toolik camp.

18 As had been the case at Happy  
19 Valley, the amount of oil spilled cannot be accurately  
20 determined. The source of the leak was a deteriorated  
21 seam on a bladder tank. Lack of routine inspection  
22 checks or gauges on the bladder tanks meant that the  
23 leak could have been in progress for much of the winter.  
24 Lack of an imperviously lined dike allowed the oil to  
25 migrate into the soil and downhill several hundred feet  
26 before emerging on the surface. Neither was the spill  
27 reported properly to appropriate government agencies  
28 or cleaned up adequately.

29 A difference of opinion developed  
30 between Alyeska and the Department of Environmental





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1 Conservation over how much oil had been spilled. Alyeska  
2 while admitting that three fifty-five gallon drums  
3 containing recovered oil mixed with water and absorbent  
4 material and two hundred and fifty cubic yards of oil  
5 soaked gravel had been removed estimated the spill to  
6 have been "in the neighbourhood of one gallons".

7 The DEC had information that  
8 twenty-five drums had actually been removed in addition  
9 to the gravel and placed the estimate at "somewhere  
10 between 5,000 and 20,000 gallons" and that was based on  
11 a mathematical estimate of what had been recovered.

12 The story might have ended there except Alyeska's  
13 clean up effort turned out to be more cosmetic than  
14 effective. Oil was still on the ground and seeped out  
15 again in the spring of 1975. I've never been able to  
16 obtain clarifying information about what happened in  
17 1975 from either the APO or DEC. The story should be  
18 good if it can ever be put together. What is known  
19 is listed below:

- 20 1. In 1974, "APO field representatives were satisfied  
21 that the clean up measures taken were adequate".  
22 Whoever they were, I suspect that those field  
23 representatives knew little about oil spills in  
24 cold regions;
- 25 2. A newspaper reported in July, 1975 that, "oil was  
26 creeping out of the ground again after the original  
27 leak was improperly cleaned up";
- 28 3. A newspaper story reported in August, 1975 that  
29 either the 1974 "spill's fuel loss estimates are  
30 grossly understated or there has been a long-



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standing, undiscovered leak similar to the one found in Galbraith Lake camp in June. Alaska state troopers estimated the size of the latest discovery as more than 100,000 gallons and a large area of dead tundra vegetation and oil-soaked ground was reported downhill from the camp's fuel storage area".

4. The Assistant Attorney General in Fairbanks recommended to the Department of Environmental Conservation that "you ought to settle with Alyeska for a very high figure on the Toolik spill. They are really jumpy about that one". However, the Department of Environmental Conservation had apparently shelved action on the case and no further action was ever taken on it to my knowledge.

Perhaps the most well-known oil spill to date occurred at Galbraith camp. It was another case of chronic <sup>leakage</sup> from buried fuel lines. The original Alyeska report in February, 1975 estimated the spill size at 100 gallons. Alyeska also reported at that time that the spill had been completely cleaned up. It had not been. A proper investigation was not made by Alyeska or appropriate government agencies. The spill again surfaced in June, 1975 during breakup.

By then, it was entering a stream adjacent to the south side of the camp and then sent to Galbraith Lake. Followup Alyeska telex notification to government agencies listed the amount of the spill as "unknown" but referred to the cause of



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1 the spill as being the migration of oil from the spill |  
2 reported at 100 gallons in February, 1976. By the time |  
3 that Department of Environment Conservation investigators |  
4 arrived at Galbraith, a full week after the oil re- |  
5 surfaced on the 11th of June, 1975, an Alyeska  
6 representative had informed the state via telephone  
7 that the spill "was roughly 60,000 gallons".

8 The Department of Environmental  
9 Conservation investigators found that:

- 10 1. Alyeska had conducted open burning of oil along  
11 the stream for at least three days prior to  
12 requesting the necessary permission from the  
13 Department of Environmental Conservation.
- 14 2. Despite assurances to the contrary, Alyeska had  
15 not taken proper action to clean up the spill.  
16 It was necessary for the Department of Environmental  
17 Conservation investigators to repeatedly recommend  
18 additional containment and cleanup measures and  
19 double check to ensure action.
- 20 3. Significant quantities of oil continued to enter  
21 Galbraith Lake during the course of their  
22 investigation. Although the amount is unknown,  
23 large oil slicks were sighted in the lake.
- 24 4. Little interest in the spill was evidenced by  
25 the Federal-Alaska Pipeline Office even though  
26 it was a major spill of a "critical nature" and  
27 posed an obvious threat to aquatic organisms.

28 Noting "gross negligence" on  
29 the part of Alyeska, the Department of Environmental  
30 Conservation investigators recommended the "maximum  
penalty allowed".





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Possibly spurred by a series of front page newspaper stories on the incident, the state filed a lawsuit against Alyeska over the Galbraith spill. It's unknown when that case may be decided, and Alyeska has requested a jury trial. I've been told now that the possible trial date would be sometime next spring, which will be about two years after the incident occurred. However, the progress of the case has revealed several interesting things.

1. The state had to amend its complaint to take into account ~~the~~ continuing nature of the leakage observed as the investigation proceeded. Through the summer they had two additional amendments to the complaint which ended up by saying it's still occurring.

2. Alyeska alleged in its answer to the lawsuit that state environmental laws were unconstitutional, the state did not have the standing since the spill occurred on federal lands, if the spill occurred (a fact which Alyeska refused to admit) that no environmental harm was caused, and that Congressional action authorizing the pipeline pre-empted state jurisdiction (that's quite a mouthful for a company which had supposedly great concern about protecting the environment).

3. The contractor running the camp for Alyeska (Arctic Contractors), admitted unsatisfactory camp conditions, continuing fuel leaks, and lack of co-operation from Alyeska to correct the problems.

4. An employee at Galbraith, who was subpoenaed by the assistant Attorney-General in Fairbanks, was fired



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after he gave his deposition. I don't know what he said in his deposition but presumably it was adverse to Alyeska. It's not been made public yet.

5. Alyeska never did revise their Galbraith spill estimate in writing from the original one of 100 gallons. Estimates by informed individuals have exceeded 100,000 gallons, and the highest that I've seen in government documents place the upper limit at 500,000 to 600,000 gallons. Despite the identified problem, corrective action was slow in coming and pressure testing and the identification of new leaks was still in progress in the spring of 1976 (again a year after the initial incident of the spill). Considerations of length preclude full details; however, some additional information relevant to the topic of oil handling includes:

1. Oil applied for dust control in violation of permit terms, polluting streams and resulting in traffic accidents, as well as no one enforcing the permits once they're issued.

2. And many, many indications of under-reporting failure to properly clean up, and failure to report oil spills.

With regard to that last point, I would like to quote the Department of Environmental Commission Commissioner -- excuse me, Conservation Commissioner Mueller, since it is his department which has the primary responsibility regarding oil pollution under state Statutes:

"A great deal of staff time recently has been spent on investigating oil spills,"



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this was back at the time of the Galbraith oil spill.

"These field investigations have turned up problems of which we had been unaware. For example, we have solid evidence that large oil spills may have been deliberately concealed at three camps. Infact, the more time our staff spends at the camps, and along the right-of-way, the more problems they uncover."

Commissioner Mueller didn't discuss in great detail why his department was not performing its job or what should be done if the additional pipeline monitoring positions he felt his department needed were not obtained. However, Deputy Commissioner Reinwand did write an illuminating statement concerning that possibility:

"I would recommend that we fold our tent and entirely abandon our pipeline program. If we cannot obtain adequate staff to do the job properly, we will be violating a public trust. Instead of continuing to limp along, I would strongly advocate that we level with the people of Alaska by publicly presenting the problem to them."

Whereas that might sound good, that was not carried through when the positions were not authorized by Alyeska.

As you probably know, the Department of Environmental Conservation didn't get the additional positions it was seeking because Alyeska simply refused to fund them. To date I've been



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1 unsuccessful in obtaining any explanation from the  
2 state as to why the state didn't insist that Alyeska  
3 live up to Section 18 of the right-of-way lease  
4 and provide the positions, either then or previously  
5 and the D.C. never did level with the people.

6 A sequel of sorts to that is  
7 in this other report which I believe has already been  
8 submitted. As of August '76 the department had two  
9 full-time pipeline monitors in the field, and several  
10 people working part-time as assigned. Those two full-  
11 time monitors both quit at the end of August. One left  
12 the state entirely, and the other requested a transfer  
13 from pipeline duties, and I'm told by their supervisors  
14 that both of these people were upset over not getting  
15 support from the state for enforcement.

16 A discussion of oil handling  
17 on the pipeline would be incomplete without at least  
18 mentioning former Department of Environmental  
19 Conservation Commissioner Brewer's report on the  
20 topic prepared for the state pipeline co-ordinator's  
21 office following the Galbraith spill. Dr. Brewer discusses  
22 Alyeska's performance in less than glowing terms.

23 "Although Alyeska mentions prevention of oil  
24 spills as having a high priority in their  
25 contingency planning, this does not appear to  
26 permeate to the field operations. Alyeska  
27 promised the Congress and the people that the  
28 pipeline would be built right and with the  
29 least possible damage to the environment.  
30 Alyeska has been slow to assume this responsibility.





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The Alyeska learning curve as to regards to oil spills is not impressive."

I think that Dr. Brewer would probably agree with the oil curve that another engineer in the Department of Environmental Conservation drew, which is quoted in this larger report. He graphed on a vertical axis a number of errors committed by Alyeska, and on the horizontal axis time, and the line for Alyeska goes straight horizontally across the top of the graph. The typical learning curve would have a decrease in errors through time, showing some learning from experience.

Dr. Brewer went on to make a number of pertinent recommendations, many of which would be familiar to anyone having read the E.P.A.'s recommendations in 1972. Had he known the circumstances of the then upcoming Prospect Oil spill which was recognized in January '76, when he wrote his Report, Dr. Brewer would probably have been even less impressed with Alyeska's learning curve.

There is more that could be said about Alyeska's mishandling of oil but not enough time to say it. I would like to leave this topic by informing you of the latest U.S. Geological Survey information regarding the Happy Valley, Galbraith and Prospect Oil spills.

This information is the result of field observations made during the first half of July, and this has further been updated by August data of '76. The U.S. Geological Survey has been



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kind enough to provide it, even though it is "provisional" and "subject to revision". The information is simply that oil was observed downstream of each camp, Happy Valley Creek, an unnamed creek entering Galbraith Lake, and the Jim River respectively, where the initial reports of oil entering the water occurred four, one, and 1½ years ago respectively. The question is, isn't someone supposed to clean up oil spills and enforce the applicable stipulations and laws?

I would like to touch more briefly on a number of other areas as time allows. First of all, the disposal of waste water. One of my responsibilities when I monitored the pipeline for the Department of Environmental Conservation in 1974 and early in 1975 was to check for compliance with the state's water pollution control laws, including the disposal of sewage. Some of my thoughts in this matter are already in writing and I would refer you to my article

"Wastewater and Alyeska: North of the Yukon River" that was published in "The Northern Engineer" last summer. It's also an appendix to my larger report, which is submitted in evidence. That article discussed the manifold violations of various state Statutes and regulations as well as stipulation 2.2.6.2 which requires compliance with applicable state laws. Despite numerous warnings, Alyeska violated requirements for plan review prior to installation of equipment, permits prior to operation, and provision of secondary treatment for sewage, proper disposal of sludge, and emergency



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notification of the department when numerous failures occurred. As a direct result of these violations, water pollution did occur. Alyeska put more men in their camps north of the Yukon River than the hydraulic treatment equipment could handle, and the result was serious hydraulic and organic overloading of the equipment and process failure. In my opinion, these violations were intentional since a lack of planning precluded installation of adequate equipment in time to support the levels of workers needed for construction. the problem was aggravated by the general lack of untrained operators -- I mean the lack of trained operators, they had plenty of untrained ones, to make the existing equipment function as well as possible. However, even trained operators would have been unable to make such grossly overloaded equipment carry the load.





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The substance of my observations was recently admitted in a corroborating paper presented in Canada/<sup>presented</sup> at a conference in March of this year in Edmonton by John Hargesheimer and Sage Murphy of Dames & Moore, consultants to Alyeska in this area. Without delving into that portion of the paper which the authors designate as "Engineering Philosophy", I would like to list several quotes:

1. In 1974:

"The biological plants that had been installed were having difficulty because of organic and hydraulic overloading. In addition, the operation was plagued with untrained operators and logistics problems."

2. In 1975:

"As 1975 progressed, the physical/chemical afterthoughts arrived, were installed, and required continual modifications. Suspended solids removal was excellent (99%) but adequate BOD<sub>5</sub>, bio-chemical oxygen demand, removal was difficult at best."

Bio-chemical oxygen demand measured on a 5-day time frame is a measure of the organic content in terms of pollution.

3. "Adequate removal of BOD was aggravated by the higher than expected soluble fraction. Consequently the activated carbon columns became organically overloaded and unable to affect adequate levels of removal resulting in anaerobic conditions in the columns and low quality effluent."



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4. "Usually the regulatory effort was limited to requiring the contractor to more frequent effluent monitoring."

In other words, when Alyeska data indicated that they were violating the regulations regarding their effluent quality, instead of taking corrective action by enforcement, the state agency requested Alyeska to take more samples and provide more data of the violations, which does amount to a certain economic burden on Alyeska, but doesn't correct the problem very well.

5. "In summary of this confusing update, it suffices to say that the engineering and regulatory approach was somewhat lacking in consistency and total responsiveness."

You won't see these quotes again. Since I wrote this, the people who authored that paper, under pressure from Alyeska, have contacted the Department of the Environment in Canada and got them to retract the paper. So it won't be published in the proceedings of that conference.

Alyeska's ostensible reason for that is that they consider the data to be proprietary. I feel that it may have something to do with the fact that it indicates that they were less than complying with the requirements.

Violations of state law have continued into 1976 although it is only fair to say that the general level of treatment has improved since 1974. In an internal report discussing 1975



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performance, Alyeska bragged that its treatment plants were in compliance with the relatively lenient BOD requirements contained in a belately issued state permits "some 67% of the time". That figure is based on unchecked Alyeska data, and they are required by the permits to be in compliance 100% of the time with that particular limitation.

State waste disposal permits were issued to most Alyeska camps considerably after operation had commenced; only one permit was in effect in 1974 and that one was continually violated. After issuance no apparent attempt was made to enforce them even though Department of Environmental Conservation field inspectors recommended punitive fines be levied.

Similarly, the E.P.A. never has gotten around to issuing federal permits to most of the Alyeska camps where one is required, even though findings of violation for not having permits and compliance orders to obtain them were issued in 1975. At last count, the holdup involved a jurisdictional dispute between the E.P.A. and the D.E.C.

Almost every report I have seen in the past year which has attempted to summarize environmental problems noted on the pipeline has spotlighted the problem area of erosion control, including revegetation and all other rehabilitation measures.

Stipulation 2.4.1.2 requires that:



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"The design of the pipeline system shall provide for the construction of control facilities that will avoid or minimize erosion,"

and stipulation 2.4.4.1 requires that:

"Seeding and planting of disturbed areas shall be conducted as soon as practicable."

Compliance has simply not occurred.

Both the state pipeline co-ordinator's office and the state side of the Joint Fish & Wildlife Advisory Team responded to a query from Governor Hammond's office last spring in June '75 concerning "critical problems" on the pipeline by placing lack of erosion control and re-vegetation at the top of the list. According to Mr. Champion,

"A major portion of the problems associated with construction at this time is related to Alyeska's failure to properly implement their construction phase erosion control and revegetation plan."

The Joint Fish & Wildlife Advisory Team was somewhat more critical:

"On paper Alyeska has proposed many sound erosion control techniques, but the application of erosion control as construction occurs is generally non-existent. It is obvious that the integration of erosion control with construction is not of a high priority in Alyeska's construction scheduling. Numerous erosion control problem areas have been pointed out by the





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Joint Fish & Wildlife Advisory Team field biologists to the representatives of the pipeline co-ordinator in the Alaska pipeline office, (and in that regard the Joint Fish & Wildlife Team serves only an advisory capacity so they note the violations and they advise the state federal offices that some action should be taken, but the responsibility is with the state and federal pipeline office to take that action). Success in getting the required erosion control action from Alyeska Pipeline Service Company has been poor."

As noted in the comptroller general's report to the Congress, no one attempted to measure the resulting environmental damage in terms of water quality standards or impact on fish resources. Lack of erosion control, however, didn't merely damage the environment, it was also counter-productive to construction and in 1975 caused,

"structural failure of the pipeline work pad in many areas."

Other environmental stipulations are primarily in such areas as fish resource protection, providing for big game movements, clearing of land, material site mining, and aesthetics. There simply is not time to discuss the non-compliance which has occurred in these areas. That next sentence should be deleted down to the point of "I'll summarize my feelings by quoting from the conclusion sections of a JFWAT report."



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"Alyeska has not minimized the environmental impact of pipeline construction, as required by the stipulations of the right-of-way lease."



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Section 9 of the Federal Right-of-Way Agreement, which is essentially identical to Section 16 of the State Right-of-Way Lease, requires that "construction plans, a quality assurance program, and other related documents be submitted to the Authorized officer for review and approval prior to his issuing Notices to Proceed". This section was not complied with. Despite major identified discrepancies in the Alyeska proposed Quality Assurance Program, the Authorized Officer gave "tentative" approval anyway "so that construction would not be delayed". It took an independent investigation by the General Accounting Office to spark new interest in upgrading Quality Control and Quality Assurance planning to the point where final approval was finally given by the APO on 18 August, 1975. It would have been nice if final approval also meant that Quality Control and Quality Assurance would finally work. However, that has not been the case either. This is most obvious with regard to environmental Quality Control and Quality Assurance.

The State Pipeline Co-ordinator's Office and the Joint Fish and Wildlife Advisory Team are apparently agreed as to the nature of the problem. The Pipeline Co-ordinator's office and its annual report for 1975, labelled welding and environment as the two most significant areas of Quality Control and Quality Assurance failure. State Pipeline Co-ordinators cited "an almost consistent lack of adequate Quality Control and Quality Assurance attention to environmental





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1 concerns and constraints". In the spring of 1975,  
2 the JFWAT position was summarized by the statement,  
3 "To date, Alyeska has not provided a viable Quality  
4 Assurance, Quality Control effort to assure environ-  
5 mental stipulations compliance". Later in the year  
6 not much had changed and the JFWAT position was stated  
7 as "The crux of the problem of not meeting environ-  
8 mental stipulations is an inadequate Quality Assurance  
9 Quality Control program by Alyeska. The numerous  
10 items detailed in JFWAT surveillance reports documents  
11 a non-existent or at best inadequate environmental  
12 QA/QC effort. They also have a more recent quote from  
13 the head of the Alaska Department of Fish and Game  
14 Pipeline Monitoring section of JFWAT which was made  
15 in August of this year and as quoted in this larger  
16 report, which is to the same effect, lack of environ-  
17 mental Quality Control.

18 The situation I have described  
19 raises serious questions about democratic control over  
20 modern, large scale developments. Barry Commonor asks  
21 a very important question and then provides us with an  
22 appropriate answer in his book, The Closing Circle.  
23 He writes:

24 "Who is to be the Solomon of modern tech-  
25 nology and weigh in the balance all the  
26 good that comes of it against the ecological  
27 social costs? In a bureaucracy, these  
28 matters belong not in the hands of the  
29 experts, but in the hands of the people  
30 and their elected representatives."



1                   Although there might be  
2     considerable disagreements as to exactly who rep-  
3     resents the public interest and exactly what the public  
4     interest is, in a project of this type, there can be  
5     no question that the final arbiters, the Solomons,  
6     must be the people and their elected representatives.

7                   Whether or not the Trans -  
8     Alaska Pipeline Authorization Act, which was Public  
9     Law 93-153, was really in the best interest of the  
10    United States is a question that is beyond the scope  
11    of this testimony. The fact is that the Act was  
12    voted into law by the elected representatives of the  
13    people. Although many remember that it authorized  
14    prompt construction of the pipeline, few seem to recall  
15    that it also called for strict environmental protection.  
16    The environmental stipulations derived from that Act.  
17    Therefore it should be clear that if it is in the  
18    public interest to construct a pipeline, it is also  
19    in the public interest to comply with environmental  
20    stipulations and other applicable environmental laws.  
21    Who is looking after the public interest? Ideally the  
22    government should be, however, after looking at the  
23    pipeline I become skeptical. I think Robert Engler  
24    put it very well in his paper presented at the 20th  
25    Alaska Science Conference in 1969. Since it appears  
26    that someone wasn't listening back then, I'd like to  
27    quote several important points he made when discussing  
28    the permeability of oil in government.

29                   "If you will look at every single agency  
30                   concerned with oil, you will discover that



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1 the critical junctures the people making  
2 public policy in the federal government  
3 for example, are often advisors right  
4 from the industry and as a number of  
5 states get oil, it appears that the legions  
6 of Congressmen and Senators who identify  
7 the oil industry as the interest of their  
8 state appear to grow. What happens to  
9 almost every public servant I know in the  
10 Federal Power Commission, in the Interstate  
11 Commerce Commission, the state regulatory  
12 agencies on every level, is that these  
13 people become isolated and, at best, they  
14 become neutral, and we are grateful when  
15 they are honest, but as champions of public  
16 philosophy, we rarely find them, if Alaska  
17 could develop a body of citizens and public  
18 servants that can support the wise control  
19 of the environment, it might then create  
20 rich opportunities for meaningful individual  
21 freedom and a social system to which people  
22 could feel committed in place of the tragic  
23 American record of loot and litter."

24 If you can't depend on government to protect the public  
25 interest alone, it becomes essential that groups of  
26 citizens band together as envisioned by Dr. Engler  
27 to oversee the public interest. Attempts at such  
28 action on this project have been stymied by disorgani-  
29 zation, lack of resources, and lack of co-operation  
30 from government and industry.



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Early in 1974, two attempts to form citizens surveillance teams were made. One was the Arctic Environmental Council under the sponsorship of the Arctic Institute of North America. The Council has enjoyed the co-operation of government and industry, possibly because it was realized early on that the Council would be an impotent and ineffective group, but that it might serve for some public relations value. The Council has no permanent staff and since the protest resignation of its only Alaskan member is composed entirely of outsiders. Eminent as they are, these men simply have no time to really investigate what is occurring and even if they were well intentioned, the Council is now supported financially by Alyeska and although it has made three trips to Alaska in three construction years, has only published a report for its first trip. I understand now that they are coming out with a report on the latest trip that will combine their last two trips. That report contained little more than canned speeches and a reprint of the stipulations. Apparently, the report of the second trip was delayed for many reasons. A draft was made available in May of '76. Now some of the reasons were included foot-dragging by the publisher who was Alyeska. The Council has apparently issued a report describing its third trip which take place in July '76, after -- wait a minute, okay; I'm sorry, I already included this. The Council has apparently issued a report describing its third trip which took place in July '76 after the protest resigna-





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tion of its only Alaskan member. I have not yet been able to obtain a copy of it. The news account which I read indicated that the Council despite solid evidence to the contrary, had little adverse to say about Alyeska.

Perhaps sensing that the Arctic Environmental Council would be ineffective, the National Environmental Groups which had been Plaintiffs, in the lawsuit that delayed pipeline construction, Wilderness Society, Friends of the Earth, and Environmental Defense Fund, declined to participate in the Arctic and Environmental Council. Instead they chose to support a local attempt, jointly proposed by the Alaskan Centre for the environment, the Fairbanks Environmental Centre and several other Alaskan organizations. Although this effort was never able to obtain the necessary financial support, it did determine two things. Alyeska was not going to co-operate and neither would the Federal Alaskan Pipeline Office. Non-co-operation from Alyeska and the APO effectively meant no access to the pipeline either physically or in terms of information, which brings up an interesting point and the last one I'd like to make before closing. What about freedom of information?

I've now had the experience of interacting with just about all the government agencies involved with the pipeline in any way. The government agencies responses have ranged from near total co-operation to near total non-co-operation.



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1 Regardless of the applicable State Statutes, which  
2 have not been defined by regulation or Federal Statutes  
3 which have been defined by many pages of regulations.

4 It is my opinion that the  
5 existing freedom of information laws do not provide  
6 real protection for the public's right to know, what  
7 his government is doing. The reason is particular  
8 obvious when environmental non-compliance on a project  
9 as fast moving as a pipeline is concerned. Government  
10 agencies can simply refuse to supply information. In  
11 that case a citizens only recourse is lengthy and  
12 expensive legal proceedings. In terms of failure  
13 to provide information, requested by citizens the  
14 State and Federal agencies in most fragrant disregard  
15 to the public's right to know or the State Department  
16 of Environmental Conservation and the Alaska Pipeline  
17 Office, respectively. I have initiated a lawsuit  
18 against the Department of Environmental Conversation  
19 and am now contemplating one against the Alaska Pipe-  
20 line Office and I can add to that, one against the  
21 Environmental Protection Agency. I found me, a lawyer  
22 who will take it on a contingency basis.

23 THE COMMISSIONER: Good stuff.

24 A There aren't too many  
25 of those in Alaska, but I found some in Oregon. On  
26 the other hand, giving credit, where credit is due,  
27 I have received excellent co-operation from the State  
28 Pipeline Co-ordinator's Office. You might ask what  
29 about the source of all knowledge of Alyeska. Un-  
30 fortunately, as was pointed out to me by a representative  
of Alyeska, that company has no legal requirement to  
respond to the public.



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1                   They refuse to provide me any  
2 information. In summary, widespread non-compliance  
3 with environmental laws and stipulations has occurred  
4 to data during pipeline construction. This is not an  
5 allegation but a fact based on solid and voluminous  
6 documentation from a number of sources including Alyeska's  
7 own internal reports. Long-term non-compliance was  
8 made possible by the lack of enforcement on the part  
9 of government. Logically, apart from the documentation,  
10 how else could it have been long-term? In the words  
11 of Al Carson of the Joint Fish and Wildlife Advisory  
12 Team, "Even the best stipulations cannot produce  
13 results in the absence of adequate enforcement".

14                   Non-compliance and lack of  
15 enforcement must by definition mean that the public  
16 interest has not been properly protected. It has been  
17 degraded as environment has. In an apparent effort  
18 to prevent public knowledge of the facts, some of the  
19 key government agencies involved have disregarded  
20 provisions of the "Freedom of Information Laws" that  
21 apply.

22                   I have some recommendations  
23 to make based on this experience. The highest degree  
24 of environmental protection from pipeline construction  
25 activities would occur if construction is not authorized.  
26 Once construction is authorized, some degree of  
27 environmental damage will occur. This damage can be  
28 reduced by the establishment of appropriate stipulations,  
29 regulations or other laws if compliance is assured  
30 through enforcement. Whether or not the degree of





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1 reduction of environmental damage is acceptable depends  
2 on your viewpoint. The degree which is achievable  
3 depends on the following variables:

- 4 1. The availability of baseline data;
- 5 2. The adequacy of the stipulations, regulations,  
6 or other laws;
- 7 3. The availability of control and construction  
8 technology to achieve the standards prescribed;
- 9 4. The adequacy of construction management to maintain  
10 control of the application of technology;
- 11 5. The adequacy of monitoring and enforcement  
12 mechanisms and the willingness of government to  
13 use them to ensure compliance with standards.

14 It may be that the lack of  
15 baseline data makes it difficult to evaluate the  
16 significance of environmental impacts. Additionally,  
17 suitable control and construction technology may not  
18 be available to prevent significant adverse environmental  
19 impacts. For example, stipulation 2.5.4.1 on the  
20 Trans-Alaska oil pipeline project requires the assurance  
21 of "free passage and movement" of big game animals  
22 including caribou. Research conducted with caribou  
23 on the Arctic slope after construction commenced has  
24 yielded the preliminary result that observed crossing  
25 delays and distribution abnormalities indicate the  
26 stipulation as not being satisfied. This research  
27 is considered baseline since data prior to construction  
28 does not exist. The observed effect indicates that  
29 technology has not been adequate to assure compliance.  
30 If the long-term impact is adverse, it will only be known



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1 after the fact and the damage will already have occurred.

2 The same can be said concerning  
3 stream siltation. Little water quality of hydrologic  
4 data existed along the Trans-Alaska oil pipeline corridor  
5 prior to construction. Little more has been collected  
6 during construction. There are copious references  
7 to siltation in JFWAT narrative surveillance reports,  
8 such as muddy water, silty water, turbid water. Almost  
9 without exception are qualitative rather than quantitative.

10 Of the nearly 900 stream  
11 crossings of the pipeline, measurements are only known  
12 to have been taken in five cases. Since I've written  
13 this and since this larger paper was released, a sixth  
14 case has been made known to me. I don't know who  
15 sent it to me, but it was from an agency that previously  
16 withheld their files from me and it was sent  
17 anonymously. It showed violation. Not all of this  
18 data has been made available by government agencies  
19 involved. That which is available is not complete  
20 in coverage or parameters measured. However, it does  
21 demonstrate that rather gross violation of water  
22 quality standards has occurred. Yet available  
23 mitigative measures such as silt curtains were generally  
24 not used. In the several instances where they may  
25 have been used, monitoring data to evaluate their  
26 effectiveness is not available. The environmental  
27 damage, we don't know because we haven't measured.  
28 The potential damage to fish resources could be  
29 significant.

30 I would recommend against



Beakhust, Zemansky  
In Chief

1 construction of any pipeline until a data base which  
2 is adequate to characterize the natural resources and  
3 the potential impact with construction has been  
4 established through long-term research by unbiased  
5 professionals and until the state of the art of  
6 technology is adequate to provide the necessary degree  
7 of environmental protection for those resources.

8 Should construction be authorized

9 I would recommend that:

- 10 1. Baseline data and control technology be considered  
11 to develop detailed and specific stipulations  
12 designed for environmental protection;
- 13 2. The administrative discretion of government agencies  
14 to waive stipulations or give variances to them  
15 be severely limited;
- 16 3. Government monitoring efforts be integrated  
17 sufficiently to assure full coverage by personnel  
18 with engineering, biological and environmental  
19 expertise without dependence on the quality  
20 assurance/quality control program of the pipeline  
21 constructors;
- 22 4. The burden of proof of the ability to comply with  
23 stipulations and to protect the environment be  
24 placed on the pipeline constructors and that such  
25 proof be presented prior to construction with a  
26 provision for correction of any deficiencies as  
27 necessary by reconstruction;
- 28 5. Full public disclosure of all information concerning  
29 planning, construction, and monitoring be made in  
30 time for citizen participation in the decision-



Beakbust, Zemansky  
In Chief

1 making process;

2 6. A mechanism for citizen surveillance of all  
3 construction activities be provided for;

4 7. Government place a priority on environmental  
5 protection and quality of construction as opposed  
6 to speed of construction.

7 I would like to close with  
8 one last quote taken from a memorandum written by a  
9 pipeline monitor after a meeting last winter with  
10 Alyeska concerning solutions to camp oil spill problems:

11 "Why wait until spring? Sure, it is harder now  
12 that it is winter. But that was Alyeska's choice  
13 to improperly build the camps and then wait until  
14 now to start doing anything about it. Is Alyeska  
15 putting us on or are they sincere? Either  
16 situation leads to a double indictment. If it's  
17 a put-on, Alyeska is not sincere in its efforts  
18 to build/maintain the camps at minimum  
19 environmental impact standards. If that is true,  
20 then the burden lies with the state to  
21 competently enforce proper engineering. If  
22 Alyeska is sincere, however, an even more severe  
23 double indictment may be proper. Then the worst  
24 fears of the environmental groups are verified.  
25 The present state of the art, both engineering  
26 art and management art is not advanced enough  
27 to build an environmentally acceptable pipeline  
28 in the Arctic".

29 With regard to that, it should  
30 be noted that the decision to wait was made. They didn't





Mr. Zemansky  
In Court

1 take the action over the winter. They did wait until  
2 the spring.

3 THE COMMISSIONER: Thank you,  
4 Mr. Zemansky.

5 MR. BAYLY: Before cross-  
6 examination, Mr. Zemansky, you have provided me with,  
7 and I'll make this an exhibit, Mr. Commissioner, a  
8 Joint State Federal Fish and Wildlife Advisory Team  
9 narrative surveillance report by a Mr. Charles Kaye  
10 as an example of a report on a problem. I wonder if  
11 you could take us through that on the record and I'll  
12 submit this as an exhibit.

13 A Okay. This is a report  
14 for the period of 31 August through 9th of September,  
15 1976 on Section 3 by Joint Fish and Wildlife Advisory  
16 Team surveillance officer. It's lengthy. It's about  
17 ten pages which is longer than normal. It seems to  
18 be apparent that Mr. Kaye was a little bit disturbed  
19 about his monitoring sequence on that frame and  
20 decided to write it up in detail.

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Reakhus, Zemansky  
In Chief

The bulk of the report deals with the reconstruction of the Tolovona River crossing. The original crossing was constructed about this time last year. It involved a lot of siltation on a major salmon stream. It turned out that it was constructed above the required burial depth so that it was subject to possible scattering and possible rupture of the line if it was put into operation in that fashion. The decision was made to reconstruct that with an above ground crossing so that they wouldn't go back in and disturb the stream again. To some degree that's because of the great disturbance that occurred the first time when they installed it.

This report concerns some of the preparatory actions involved in that evolution of getting ready to construct that second crossing. Basically, it demonstrates Alyeska requesting something and the Alaska Pipeline Office perfectly willing to give it to them regardless of the logic or the necessity for it and regardless of the environmental laws that apply and without the approval of the Department of Fish and Game which is necessary in this particular case. There's a lot of discussion going back and forth and some emphasis on the fact that the Alaska Pipeline Office, the federal representative is a good friend of the Alyeska engineer who wants to do this particular evolution.

The evolution does occur. Unnecessary environmental damage does occur and it's done illegally. It turns out at the end that it's



Beakhust, Zemansky  
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fairly documented that it wasn't necessary that the actual plans which weren't available to the people in the field would require or would make possible other action that would have less environmental impact.

There's also some other comments toward the end of the report on other related topics such as an oilspill on the TransAlaska Pipeline highway, right on the banks of the Yukon River which has been in existence for close to two years now without being properly cleaned up. This particular pipeline monitor wasn't there when it first occurred. He's new to the project, relatively new and noted it when he came upon it and tried to find out why it wasn't cleaned up. Incidents of thermal erosion which is a violation of stipulations not being prevented and not being rectified when they occur. Ponded water killing vegetation and they're supposed to provide for drainage so water doesn't pond. That's at Million Dollar Creek which is a site of several other environmental problems which are rumor to have raised the cost of that particular construction effort to around a million dollars. The problems with big game crossings. I think those are the major parts of it.

O            One more question,

Mr. Zemansky. You have referred to problems in environmental areas and when Mr. Norton was here, he suggested -- Dr. Norton was here -- he suggested that you, among others, might know of problems actually on the construction of the pipeline itself that were of an engineering nature. With regard, for example, to





Peakhust, Zemansky

In Chief

Cross-Exam by MacQuarrie

1 the vertical support members and the calculations that  
2 were made with regard to those.

3  
4 A I don't know all the  
5 details about the v.s.m.'s. I know that they've had  
6 some difficulties with them that indicates that they  
7 weren't properly designed and installed in some cases.  
8 They have had, for example, when the pipeline was loaded  
9 with water for a hydrostatic testing in some locations,  
10 the pipeline and supports were sinking into the  
11 permafrost indicating that possibly it was improperly  
12 designed. It sunk far greater than design limitations  
13 and there was some question as to whether or not it had  
14 been left to set up in the permafrost long enough  
15 before they applied the load and this being a case of  
16 Alyeska attempting to load these as soon as possible to  
17 get the construction work done regardless of the  
18 specifications.

19 MR. BAYLY: This panel is  
20 now available, Mr. Commissioner, for cross-examination.

21 MR. SCOTT: Mrs. MacQuarrie?  
22 CROSS-EXAMINATION BY MRS. MACQUARRIE:

23 Q Mr. Zemansky, was  
24 there not a public awareness or concern for the oilspills  
25 that took place?

26 WITNESS ZEMANSKY: A There  
27 has been. Many of these were slow in becoming made  
28 public knowledge. Usually it's or often it turns out  
29 that the public knowledge occurs because they're made  
30 public inadvertently. In terms of the, like the  
Galbraith Spill which resurfaced around the 11th or 12th



Reakhus, Zemansky  
Cross-Exam by MacQuarrie

1 of June, '75, that was not -- the instances or the  
2 circumstances surrounding that were not well-known for  
3 about close to two weeks after it occurred. An  
4 investigative reporter who had some contacts on the  
5 pipeline was able to get more information on it and then  
6 there several front-page news stories and that developed  
7 a lot of public interest which I feel is directly  
8 responsible for the State having taken legal action in  
9 that case.

10 The day before that  
11 broke on front-page headlines, I was at an Environmental  
12 Advisory Board meeting of the State and the State  
13 Department of Environmental Conservation Commissioner  
14 in talking with his Environmental Advisory Board and  
15 in talking about oilspills specifically and oilspills of  
16 size, didn't even mention that spill. He should have  
17 known very much about it because that was about a week  
18 after his department was aware that it was a large and  
19 a very major one -- the biggest one that had occurred  
20 so far. He talked about the biggest one that had  
21 occurred so far as being a much smaller spill that had  
22 occurred earlier. The next day it made the front-page  
23 headlines and I think if it hadn't that the State  
24 probably would not have taken the action it did. It  
25 stayed on the headlines for about a week or so with a  
26 lot of follow-up articles up until the time the State  
27 filed their charges.

28 Q Was this a deliberate  
29 withholding of information? Surely to the pipeline  
30 company's advantage not to have these things occur or



Reakhurst, Zemansky  
Cross-Exam by MacQuarrie

1 if they do, to deal with them as quickly as possible  
2 with public cooperation.

3 A I think that often that  
4 when they release information it's released to show  
5 them in the most advantageous light and maybe some  
6 pertinent facts are not included such as saying --  
7 releasing a report and quoting that as the 100-gallon  
8 spill resurfacing, not indicating that it's a much  
9 larger in impact.

10 Often a lot of things  
11 are not released by the company. They have released  
12 more information on oil spills in terms of making a  
13 routine policy of it but there's strong evidence to  
14 indicate that they had not done that completely and  
15 certainly not in a light that shows them in the worst  
16 light, just, you know, like saying, "This is a result  
17 of a hundred-gallon spill that's resurfaced," rather  
18 than it may be 60,000 gallons, it may be 600,000 gallons.  
19 The Alyeska Public Relations Office is saying that no  
20 more than one gallon entered Galbraith Lake. In an  
21 article where State and Federal pipeline monitors were  
22 quoted as saying "He doesn't know what he's talking  
23 about. It's much larger than that."

24 Q Okay, why is it so  
25 difficult to obtain information? There is the Impact  
26 Information Centre apparently that we've heard about from  
27 time to time but if they only provide baseline data, fine,  
28 but why was it so difficult for you to obtain the kinds of  
29 information that you requested?  
30



## A Okay, the Impact

Q But that's all,

The State and Federal

THE COMMISSIONER: You are  
an that there has to be  
that the public knows what

A I would say so very emphatically and I think that if there was, if there had been on the Alaska Pipeline, that it would have reduced





1 these incidences of noncompliance because then public  
2 pressure could be brought to bear to get a correction  
3 and to possibly prevent recurrences.  
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Beakhust, Zemansky  
Cross-Exam by MacQuarrie

1 Alyeska and the government  
2 agencies control the access to the major parts of the  
3 pipeline. You can't see what's happening. I've been  
4 able to overfly some of it but since it was made public  
5 that I was overflying it, they've also put ads in the  
6 paper saying how I shouldn't fly low over the pipeline.

7 So, I can't go in and look at  
8 it on the ground anymore since I'm no longer a state  
9 monitor. I could only overfly it and then try to get  
10 reports out of agency officers.

11 Q It sounds like espionage  
12 and counter-espionage.

13 THE COMMISSIONER: Maybe you  
14 should move in aboard the U. S. S. Montecello (?)

15 MRS. MACQUARRIE: Perhaps  
16 that's his next assignment, sir. Was there not authority  
17 established initially with the power to enforce controls  
18 or halt the construction until these spills were cleaned  
19 up?

20 A I feel that the existing  
21 regulatory authority could have been adequately applied  
22 to prevent recurrence of this type and to clean up the  
23 ones that did occur initially. But I think because  
24 of lack of action on the part of government, they didn't  
25 take the action that was available to them. The first  
26 one in 1972 received some notoriety at the time. I  
27 think several congressmen went up to the camp and  
28 visited the site and I think Senator Gravel did  
29 from Alaska.

30 So, it was well known it occurred.



Apparently the BLM was not forcing them to and apparently the state which was also aware of these recommendations was not forcing them to. Basically, in 1975, when the former commissioner of Environmental Conservation, Dr. Brewer, did his study of what had occurred up to that point, three years later, he made about the same recommendations. They were pretty good recommendations but nothing had occurred to implement those over that three year time frame.

A You've got several interrelated problems. I think that the inclusion of





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Cross-Exam by MacQuarrie

1 an ongoing citizen surveillance effort with complete  
2 access to the information and access to the project  
3 can help the government serve the public interest by  
4 making information public and by requesting the govern-  
5 ment take action, otherwise the government is only  
6 talking to industry and no one really knows in the  
7 public what's happening.

8                               Hopefully there can be some  
9 way of ensuring that government itself, on their own  
10 internal mechanisms, will do a better job. This has  
11 to be dealt with somehow in how you set up the govern-  
12 ment monitoring agency and I think this is another  
13 recommendation of mine that they be given somewhat  
14 less flexibility in waiving the stipulations and laws.  
15 There's been a number of waivers. I can't say exactly  
16 what percentage or how many but a number of waivers  
17 that have been formally given and quite a few informally  
18 given of various laws. In terms of like a monitor going  
19 out and seeing the violation and not taking any action  
20 is an informal waiver.

21                               A waiver where Alyeska  
22 requested formally in writing and gets it in writing.  
23 There is some ability of the Pipeline Co-ordinators  
24 Office, state and federal, to make these waivers and  
25 no ability for the public to be involved in that  
26 decision. I'd see the stipulations as a guarantee  
27 to the public that was given to them by government.  
28 Basically, some of the environmental groups see it as  
29 having been forced by their previous law suits but a  
30 guarantee that was given to the public that a certain



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Cross-Exam by MacQuarrie

1 standard of environmental protection would be assured  
2 on a project and when these are waived and the public  
3 has no right to be involved in that decision, and is  
4 not even informed of it, I think that's not the way  
5 to do things.

6 Q I got the impression  
7 while you were reading your presentation and perhaps  
8 I was wrong, there appeared to me to be a great deal  
9 of apathy among the citizens regarding the oil fields  
10 or any other detrimental effects of the construction.  
11 Is that so?

12 A We have definitely some  
13 controversy within Alaska. There are a lot of people  
14 in Alaska who want full scale development regardless  
15 of the environmental consequences and there are a lot  
16 of people who have a direct economic involvement in  
17 this kind of development; construction companies, people  
18 who want high paying jobs. I think that there are  
19 more people now than there used to be before the project  
20 that would prefer to see things slowed down and had  
21 more environmental protection. I don't where the  
22 balance is, if it's fifty-fifty or thirty-seventy or  
23 what. I think that you can generate and you do generate  
24 some interest now in these things.

25 I think the Galbraith spill  
26 was a good example. That got a lot of publicity. It  
27 was headlined on Fairbank's and Anchorage papers for  
28 over a period of about a week with major picture stories  
29 and large write-ups.

30 Q I see.



Beakhust, Zemansky  
Cross-Exam by MacQuarrie

1                   A     There was a lot of  
2     interest in that particular story. It was something  
3     that the public could focus on. The weld           controversy  
4     was another one that generated a lot of interest. But  
5     it's hard to get the public involved in a lot of these  
6     things sometimes because, one, they don't get the  
7     information in a lot of cases. Other times, maybe it's  
8     a low key story on the back of the paper. It's got  
9     to be something that the public can feel involved with  
10    in some fashion.

11                   If you have a public interest  
12    group that's looking at this as it goes along, it can  
13    get this word out to the public and maybe generate  
14    more involvement.

15                   Q     Thank you. Is there not  
16    enough scientific knowledge or technology available  
17    to clean up oil spills quickly and effectively? Is that  
18    why these were left for that length of time or was it  
19    just that no one seemed to care?

20                   A     I think that the technology  
21    is less than optimum but that there is technology  
22    available to do a much better job than what has been  
23    done and generally what's occurred is that when action  
24    is taken, after a spill is disclosed, if it's a large  
25    spill say, and it's reported possibly or maybe a govern-  
26    ment monitor happens to find it and then it becomes a  
27    matter of discussion between government and Alyeska  
28    and some initial clean-up action may be taken. Very  
29    little follow-up in many cases.

30                   They might put a boom up around





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Cross-Exam by MacQuarrie

1 a stream, an oil absorbent boom, to try and filter the  
2 oil out of the water as it's going down stream. Then  
3 no one goes back to look at that to make sure it's  
4 functioning properly. Then eventually it gets washed  
5 away and oil still keeps going into the river and going  
6 downstream.

7 Q But why isn't it done  
8 quickly and effectively and finished and why is there  
9 this time that nobody bothers to go back to check?

10 A Often if a spill occurs  
11 on land, rather than destroy the tundra or damage the  
12 tundra any more than it's already impacted by the toxic  
13 effect of the oil, they prefer to let it seep out of  
14 the tundra and then try and get it before it gets into  
15 a body of water say without going in with a mechanical  
16 means and lifting out the soil that's contaminated.

17 So, that would require  
18 continued chronic attention to that problem as it  
19 keeps going. In the case of the camps, a large amount  
20 of oil was in the gravel pad of the camp and this was  
21 seeping into the adjacent tundra and in the adjacent  
22 streams. That's going to keep on seeping as long as  
23 that oil is in the pad and you could take off the  
24 whole pad but you'd have to remove the camp if you  
25 did that. In preference to removing the whole camp  
26 and starting over, they let it keep seeping and try  
27 and intercept it before it gets to the water. But  
28 that requires a continual effort and in the Happy  
29 Valley case, it's hard to say if that's still oil that  
30 was spilled in 1972 because they've had several other





Beakhust, Zemansky  
Cross-Exam by MacQuarrie

1 large spills in the same area, but it's still going into  
2 the creek right there. It may be that there's still  
3 some oil in the pad from 1972 that's right now leaking  
4 out.

5 What happened is because it's  
6 long-term and it's a chronic thing that requires  
7 continued attention is that it doesn't get that  
8 attention except when somebody, possibly a government  
9 monitor, happens to see that it's not being complied  
10 with again or they're not cleaning it up properly and  
11 he might say well, get on the stick and do it now.  
12 I saw the Happy Valley spill in 1974 in October. It  
13 was still coming out of the pad in the vicinity of the  
14 stream and going on top of snow and ice at that point.  
15 No one was doing anything about it. It was just  
16 collecting there and slowly drifting off towards the  
17 stream which was frozen at that time.

18 So, I made the camp manager  
19 aware of that and said, "Clean it up. Clean up the  
20 oil. It's there and watch for it if it comes out  
21 again". They cleaned it up at that time what oil was  
22 out but the next month there was more oil there and  
23 no one was doing anything about cleaning it up. They  
24 weren't watching for it on a continuing basis.  
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Beakhust, Zemansky  
C ross-Exam by MacQuarrie  
Cross-Exam by Scott

1 Q Is it a total lack of  
2 concern on the part of the companies or the state  
3 for this damage to the environment, or is it that  
4 there isn't enough money to available to continue the  
5 monitoring and the cleaning up process, which is it?

6 A Probably a combination,  
7 to a certain extent; but I think more a lack of concern.  
8 There is no real priority put on it. Alyeska puts a  
9 high priority on rapid construction, and cleaning up  
10 an oil spill doesn't advance construction too well.  
11 They'd rather put those people out on the line. There  
12 are continued remarks on the Joint Fish and Wildlife  
13 reports, for example, of taking people out of erosion  
14 control and revegetation work, which Alyeska puts a  
15 lower priority on, and putting them onto pipeline  
16 construction work to increase the production of  
17 pipeline, which they do put a high priority on, as  
18 opposed to environmental concerns.

19 MRS. MACQUARRIE: Those are  
20 all the questions I have.

21 MR. SCOTT: Mr. Sigler?

22 MR. SIGLER: No questions.

23 MR. SCOTT: Mr. Hollingworth?

24 MR. HOLLINGWORTH: No questions.

25 MR. SCOTT: Mr. Steeves?

26 MR. STEEVES: No questions.

27

28 CROSS-EXAMINATION BY MR. SCOTT:

29 Q I have a question -- it  
30 isn't a question so much as a general scenario that



Beakhust, Zemansky  
Cross-Exam by Scott

1 I'd like to put to both members of the panel for  
2 their comments. Let us assume in the Mackenzie  
3 Valley that creation of an authority to supervise and  
4 regulate the construction of a pipeline against a  
5 backdrop of stipulations and regulations that are  
6 as precise and as carefully drawn as can be, with as  
7 little flexibility as is permissible. Let us also  
8 assume an enforcement arm that is willing, because  
9 obviously that's a requirement. Let us also assume  
10 that there is freedom of information in the sense  
11 that there is access to reports, studies, documents,  
12 minutes, adequate minutes of meetings and so on of  
13 this authority. It seems to me that there still  
14 remains three problems, even after the most of the  
15 general propositions that you gentlemen have given  
16 us have been satisfied.

17 The first is that there is  
18 going to inevitably -- no matter how much inflexibility  
19 is assured in the stipulations -- there is going to  
20 have to be the necessity for modification of stipulations  
21 waver of them, or indeed the increased stringency of  
22 the stipulations. There's going to have to be some  
23 process over a three or four-year project allowing  
24 some measure of flexibility in the stipulations or  
25 in their application, and I think all of <sup>us</sup> with the best  
26 will in the world would recognize that that is inevitable.

27 Item 2, there is going to be  
28 the necessity for the regulating authority to develop  
29 stipulations for unanticipated problems, unless we're  
30 all geniuses there will be some problems that have





Beakhust, Zemansky  
Cross-Exam by Scott

1 not been anticipated, especially doing a new kind of  
2 work in a new terrain for that work, so that stipula-  
3 tions may have to be developed as we go along.

4 The third thing is obviously  
5 something is required, according to Professor Beakhust,  
6 at least, to enforce the enforcers. That is to see  
7 that the enforcement arm is effective in gathering  
8 information and effective in taking prompt action.

9 Now there's been a lot of  
10 talk about citizen surveillance and participation and  
11 so on, and that's all right. The other day Mr. Martin  
12 Rogol, who is on the staff of Ralph Nader's organiza-  
13 tion, an organization that has had some experience  
14 in regulating the regulators, was here and he made the  
15 point that even with all those things, citizens'  
16 surveillance and participation is not satisfactory  
17 unless it be in effect full-time on a day to day  
18 basis, that mere access, that the mere presence of  
19 citizens' groups on a periodic basis or when their  
20 interest is aroused is not adequate. But what is  
21 required is a day to day participation.

22 One of the things he proposed  
23 is that there should be some kind of independently  
24 funded and operational sort of bureau of consumer  
25 advocacy, that kind of scheme that would be funded  
26 independently of the authority, would operate independ-  
27 ently of the authority, but would be a constant  
28 presence at the stages I've described. I want to  
29 ask both of you what do you think of that process?  
30 That, believe it or not, is the question.



Beakhust, Zemansky  
C ross-Exam by Scott

WITNESS ZEMANSKY: O.K., that basically has something to do with what I'm talking about when I say "citizens' surveillance" because I would agree that there has to be a full-time effort. We can keep up with it as it goes along day after day, especially if you don't allow a project to develop as fast as the Alaska Pipeline has, extremely rapid construction project with a high priority on speed. You've got to have a full-time citizen effort, and somehow it has to be able to get funding that maintains its independence.

Q You see, before we turn to Professor Beakhust, if I can simply make this point. This paper indicates that he thinks there should be landowners' surveillance, and by that I take it he means the native organizations, and I have no quarrel with that; but it may inevitably be that the organization of the natives, or the Caucasian organizations may not represent environmental interests from time to time on specific issues. It may be that environmental organizations will not be equipped to represent the views of natives. Now, recognizing that there should be open access to all, is an independently funded bureau in which the tradeoffs will have to be made a respectable compromise, or is it not?

A        You could have something like was envisioned by some of the environmental groups in Alaska, which might include representatives of native groups having a full-time staff with a Board of these various organizations to control what that



Beakhust, Zemansky  
Cross-Exam by Scott

1 organization is doing.

2 Q Does anything like that  
3 exist on a formal basis in Alaska? Any organization  
4 with standing to intervene?

5 A They are starting to  
6 exist something of that nature now, a new group  
7 called "Trustees for Alaska" which has a fairly wide  
8 representation on its Board of Directors, including  
9 native groups and leading people from the establishment  
10 in Alaska, as well as environmentalists. This is  
11 relatively a new development.

12 THE COMMISSIONER: Those groups  
13 are mutually exclusive, the establishment and the  
14 environmentalists?

15 A Not necessarily, no.  
16 But I'm saying that some people/<sup>are</sup>on this group who  
17 have not traditionally been in the environmental camp,  
18 so to speak -- an eminent economist.

19 MR. SCOTT: Q Professor  
20 Beakhust, what do you say on this general subject?

21 WITNESS BEAKHUST: I question  
22 the --

23 Q I want to make it clear  
24 that Professor Ziegel is not going to be involved in  
25 this Bureau of Consumer Affairs.

26 A Who's Professor Ziegel?

27 Q It matters not.

28 A On the first question,  
29 on the question of the necessity to waive or modify  
30 stipulations, I read Dr. Thompson's evidence from



Beakhust, Zemansky  
Cross-Exam by Scott

1 earlier this week and I am not altogether sure that  
2 I could add very much to that. Let me say that  
3 again this is a reflection generally that the pipeline  
4 authority or whatever sort of authority it is, whether  
5 or not it's the sort of authority that Dr. Thompson  
6 has in mind, should, I think, draw its authority  
7 initially from a Statute, and of course from Parliament.  
8 I can see the necessity even during the construction  
9 phase to go back to Parliament for major changes in  
10 the Act, if certain problems arise that were unan-  
11 ticipated. On the whole, however, I think in practice  
12 one has to trust the agency established. The only  
13 way to establish trust in the agency is to make it  
14 as representative as possible, and in my case I  
15 certainly argue that there should be a substantial  
16 representation by native people on that agency, at  
17 least the top level of that agency, and indeed throughout  
18 the agency, throughout the administration of enforcement  
19 aspects.

20 I would envisage perhaps some  
21 sort of provision that would prevent the agency, a  
22 majority on that agency, say a government majority on  
23 that agency being able to waive or modify stipulations  
24 in the face of unanimous opposition by its native  
25 members. But there are two sorts of modification.  
26 One would be modification by Statute and one would  
27 be more limited discretion to the actual authority  
28 itself.  
29  
30





Beakhust, Zemansky  
Cross-Exam by Scott

1 And I think that applies in  
2 large measure to the second of your two questions that  
3 we need to develop stipulations from anticipated  
4 problems. Both to some extent, depend on the third,  
5 that is, adequate surveillance of how the authority  
6 is operating and the ability for concerned groups  
7 and people with standing in the north to in fact,  
8 recommend that there be changes not only in the  
9 detailed stipulations but in the authority itself  
10 establishing the act. I think that the idea of a  
11 Consumer Advocacy group may well be a valid one and  
12 perhaps Dr. Thompson's suggestion for an ombudsman  
13 as well, but I certainly think the most important  
14 form of surveillance of all, is surveillance by the  
15 land owners, and that's the native people themselves,  
16 and I can't see at least superficially, any objection  
17 to funding the groups in much the same way that they've  
18 been funded now during this Inquiry, to maintain  
19 surveillance during the actual construction and operation  
20 of the pipeline.

21 MR. SCOTT: Those are all  
22 the questions I have, thank you.

23 MR. BAYLY: Mr. Commissioner,  
24 I have no re-examination. I do have two reports here  
25 that I don't want to file as exhibits, but to  
26 make sure I've listed as ones that may be relevant  
27 and people may ask for and they're in our possession.  
28 One is called Intercultural Variation and Mortality  
29 Due to Violence and it's by Robert Kraus and Patricia  
30 Buffler, another is report on FY-75 Trans-Alaska



1 Pipeline Impact Expenditures by State and Local  
2 Governments prepared by the Community Planning Division  
3 of the Alaska Department of Community and Regional  
4 Affairs, and that sir, completes the evidence of the  
5 Committee For Original People's Entitlement and the  
6 Inuit Tapirisat.

7 THE COMMISSIONER: Well,  
8 thank you Mr. Beakhust and Mr. Zemansky. I certainly  
9 appreciate your contribution to the most important  
10 aspect of our work, that is, determining how to enforce  
11 stipulations imposed on the pipeline company and how  
12 to ensure that there is appropriate public participa-  
13 tion in the process. I want to thank you both and  
14 especially you, Mr. Zemansky, because you've come to  
15 us from another country to assist us and we certainly  
16 do appreciate that very much.

17 WITNESS ZEMANSKY: I hope  
18 that Canada can possibly learn from the mistakes that  
19 we've had on the TransAlaska Pipeline.

20 THE COMMISSIONER: Well,  
21 that's what we're trying to do.

22 (WITNESSES ASIDE)

23 THE COMMISSIONER: Before  
24 we close the hearing of evidence, I have an announcement  
25 to make and Miss Hutchinson, I'd like you to send the  
26 transcript of what I'm about to say to the heads of  
27 the native organizations that have participated in the  
28 Inquiry and Mr. Erasmus, Mr. Hardy, Mr. Arvaluk,  
29 Mr. Raddi and Mr. Johnson.  
30



As regard to the stand the native people take in relation to land claims and the pipeline, I intend to rely on the testimony given by the native people in the communities I visited, in the Northwest Territories and the Yukon. I intend also to consider the stand taken by the native organizations, the stand that has been announced at these hearings by the leaders of the native organizations. The leaders of these organizations have appeared at the hearings from time to time and we have heard from all of them.

Now there have been changes in the structure of these organizations during the course of the Inquiry, the changes in their leadership and changes apparently in their relationships with each other. In view of that, and as they are still developing their land claims proposals, and making changes in their proposals, and I make no criticism of that, that is entirely understandable, I want them all to know that even though the hearing of evidence is ended, at this Inquiry, they should feel free to write to the Inquiry if they make any change in the stand they take in relation to land claims and the pipeline. If there is no change, in the position that each organization has announced at these hearings, then there is no need for them to write to the Inquiry, but if there is any change, then I want them to feel free to write to the Inquiry to let the Inquiry know officially of whatever change there may be.

Mr. Bayly, I am asking that





1 that be sent as a matter of courtesy to the heads of  
2 those organizations and I hope you Mr. Bell and Mr.  
3 Veale will understand that I have reasons for doing  
4 that and that it is in no way a reflection of the work  
5 that you and your colleagues have done as counsel for  
6 those organizations.

7 MR. VEALE: I understand sir  
8 and I appreciate your sending it to the leaders. I  
9 think that's appropriate.

10 THE COMMISSIONER: Well after  
11 19 or 20 months, I've lost count, we've reached the  
12 end of the evidence to be given at these hearings,  
13 we have <sup>heard</sup> 300 witnesses at the formal hearings and  
14 1,000 witnesses at the community hearings and I should  
15 like to thank the witnesses who have given evidence  
16 here at the formal hearings and I should like to  
17 thank all of the people of all northern races who  
18 gave evidence at the community hearings that we held  
19 in 35 cities and towns, settlements and villages in  
20 the Mackenzie Valley and the Western Arctic.

21 All that remains now is,  
22 for Counsel to sum up and for me to complete my report  
23 to the Government of Canada. My task under the Order  
24 in Council establishing the Inquiry is to report on  
25 the social, economic and environmental impact of the  
26 proposed gas pipeline and energy corridor. Then I  
27 must recommend appropriate terms and conditions that  
28 ought to be imposed on any right-of-way that might  
29 be granted. I have directed Commission Council to  
30 disclose to all of you the submissions that he intends



1 to make, including the terms and conditions that he  
2 intends to urge should be imposed if any right-of-way  
3 is granted. That means when Commission Council  
4 presents the terms and conditons he wants the Inquiry  
5 to recommend, you will all be in a position to adopt  
6 them, to challenge them, to seek to modify them or  
7 to ignore them. I am adopting this procedure so that  
8 Commission Council and the staff do not have the  
9 private ear of the Commissioner when the evidence is  
10 over without the pipeline companies, the native  
11 organizations, the environmental groups, the municipa-  
12 lities and the Chamber of Commerce, ever knowing what  
13 advice they may be giving me.

14 I want it understood though  
15 that Mr. Scott and the staff do not speak for the  
16 Inquiry, their proposals which I have not seen,  
17 represent the work of Commission counsel and the  
18 Inquiry Appraisal Team. The proposals they will  
19 be making, will not in any way be binding upon me.  
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1 I understand Commission  
2 counsel's proposals will be available to all on  
3 October 27th. All other parties must circulate their  
4 proposals by November 8th. We will then reassemble  
5 here in Yellowknife on November 15th to hear counsel  
6 sum up, and I expect that early in the new year I  
7 will be in a position to deliver my report to the  
8 Minister of Indian Affairs & Northern Development and  
9 his colleagues.

10 The time is soon coming for  
11 a judgment to be made about northern pipelines. I want  
12 to make it clear that it will not be up to me to decide  
13 whether the Mackenzie Valley Pipeline should be built,  
14 and the energy corridor established. Those are matters  
15 of high policy to be decided by the Government of  
16 Canada, by the people elected to govern this country.  
17 They will have the responsibility of making that  
18 decision.

19 I want to give them my best  
20 judgment on these issues of social, economic, and  
21 environmental impact that we have spent the last year  
22 and a half examining. I want to do my best to make sure  
23 that the Government of Canada has all the facts, all  
24 the evidence before it, so that they will be in a  
25 position to make an intelligent decision.

26 So with that in mind, let me  
27 simply thank counsel for the co-operation and assistance  
28 they have offered. I should extend my thanks not only to  
29 the lawyers but to the lawyers we've trained at this  
30 Inquiry, Mrs. MacQuarrie, Mr. Templeton, Mr. Reesor and



1 Miss Noble, who took a crack at the office and like  
2 her three colleagues, did extremely well. I understand  
3 Mr. Reesor, on the strength of this, intends to go to  
4 Law School and I wish him well. I am not inviting  
5 Mr. Templeton, Mrs. MacQuarrie and Miss Noble to follow  
6 the same path. I think that they are occupied in  
7 gainful pursuits and socially useful tasks now and  
8 we wouldn't want to divert them, in any way, from  
9 their important work.

10 So Mr. Scott, if that is  
11 all the business before us, we'll adjourn until Monday  
12 November 15th.

13 (REPORT BY JFWAT, SEPTEMBER 1976, MARKED EXHIBIT  
14 886)

15 (PROCEEDINGS ADJOURNED TO NOVEMBER 15, 1976)  
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Vol. 199

AUTHOR

Mackenzie Valley pipeline inquiry:

TITLE

October 15, 1976

DATE DUE

BORROWER'S NAME

347  
M835  
Vol 199





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MACKENZIE VALLEY PIPELINE INQUIRY

IN THE MATTER OF THE APPLICATIONS BY EACH OF  
(a) CANADIAN ARCTIC GAS PIPELINE LIMITED FOR A  
RIGHT-OF-WAY THAT MIGHT BE GRANTED ACROSS  
CROWN LANDS WITHIN THE YUKON TERRITORY AND  
THE NORTHWEST TERRITORIES, and  
(b) FOOTHILLS PIPE LINES LTD. FOR A RIGHT-OF-WAY  
THAT MIGHT BE GRANTED ACROSS CROWN LANDS  
WITHIN THE NORTHWEST TERRITORIES  
FOR THE PURPOSE OF A PROPOSED MACKENZIE VALLEY PIPELINE

and

IN THE MATTER OF THE SOCIAL, ENVIRONMENTAL AND  
ECONOMIC IMPACT REGIONALLY OF THE CONSTRUCTION,  
OPERATION AND SUBSEQUENT ABANDONMENT OF THE ABOVE  
PROPOSED PIPELINE

(Before the Honourable Mr. Justice Berger, Commissioner)

Yellowknife, N.W.T.

November 15, 1976.

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PROCEEDINGS AT INQUIRY

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APPEARANCES:

Mr. Ian G. Scott, Q.C.,  
Mr. Stephen T. Goudge,  
Mr. Alick Ryder, and  
Mr. Ian Roland, for Mackenzie Valley Pipeline  
Inquiry;

Mr. Pierre Genest, Q.C.,  
Mr. Jack Marshall,  
Mr. Darryl Carter,  
Mr. J.T. Steeves, and for Canadian Arctic Gas Pipe-  
line Limited;

Mr. Reginald Gibbs, Q.C.,  
Mr. Alan Hollingworth,  
Mr. John W. Lutes, and for Foothills Pipe Lines Ltd.;  
Mr. Ian MacLachlan,  
Mr. Russell Anthony,  
Prof. Alastair Lucas and  
Mr. Garth Evans, for Canadian Arctic Resources  
Committee;

Mr. Glen W. Bell and  
Mr. Gerry Sutton, for Northwest Territories  
Indian Brotherhood,

Mr. John Bayly and  
Miss Lesley Lane, for Inuit Tapirisat of Canada,  
and The Committee for  
Original Peoples Entitle-  
ment;

Mr. Ron Veale and  
Mr. Allen Lueck, for The Council for the Yukon  
Indians;

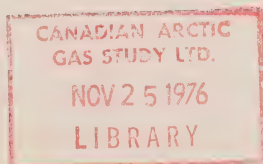
Mr. Carson Templeton, for Environment Protection  
Board;

Mr. David H. Searle, Q.C.  
for Northwest Territories  
Chamber of Commerce;

Mr. Murray Sigler and for The Association of Municipi-  
Mr. David Reesor, palities;

Mr. John Ballem, Q.C., for Producer Companies (Imperial,  
Shell & Gulf);

Mrs. Joanne MacQuarrie, for Mental Health Association  
of the Northwest Territor-  
ies.



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1 Yellowknife, N.W.T.

2 November 15, 1976.

3 (PROCEEDINGS RESUMED PURSUANT TO ADJOURNMENT)

4 THE COMMISSIONER: Mr. Scott?

5 MR. SCOTT: Mr. Commissioner,

6 I think we're all present; so no records will be broken  
7 can I begin by introducing some evidence?

8 You will recall Dr. Mayhill  
9 when he was here on a panel called by COPE undertook  
10 to provide us with a list of precise concerns in the  
11 area of dental health. He has now sent us a letter  
12 dated October 26, 1976, with enclosures, and I would  
13 ask that that be the next exhibit.

14 (LETTER WITH ENCLOSURES FROM DR. MAYHILL MARKED  
15 EXHIBIT 887 )

16 MR. SCOTT: Mr. Hollingworth  
17 has written to us by letter dated November 1, 1976  
18 in which he encloses several documents published on  
19 behalf of Foothills and available for the purposes  
20 of the Inquiry. I would ask that that letter be an  
21 exhibit, and I understand from Miss Hutchinson that  
22 the documents are available for inspection.

23 (LETTER FROM MR. HOLLINGWORTH MARKED EXHIBIT 888 )

24 MR. SCOTT: Now, Mr. Commission-  
25 er, we're at, as you can see, at the last stage of the --  
26 but one -- of the Inquiry process. I propose to make  
27 some short remarks and then call on my colleagues  
28 representing each of the participants, beginning with  
29 the two applicants, Arctic Gas and Foothills, and  
30 they will make to you their final submissions on the



1 basis of the evidence that we have heard at this  
2 Inquiry over the last year and a half.

3 I would like to begin my  
4 short remarks by making two personal observations  
5 and thereby discharging a debt of major proportions  
6 that I owe. The first is to give credit and thanks to  
7 the Inquiry Appraisal Team headed by Dr. Fyles and  
8 Dr. Weick, who have been largely responsible for the  
9 preparation of the submissions that I have, over 800  
10 pages, put before you. From the beginning of the  
11 Inquiry, Dr. Fyles and Dr. Weick and their associates  
12 have been of inestimable value to us and it is very  
13 difficult to imagine how we would have had any opportu-  
14 nity to perform our function, had they been not present.  
15 Not only have they worked ordinary hours, but they  
16 have worked well beyond the call of duty on a daily  
17 basis since March 3, 1975 to ensure insofar as was  
18 possible that appropriate and relevant material should  
19 be put before you and appropriate and hopefully rele-  
20 vant questions should be asked. I want<sup>to, to</sup>/each member  
21 of that team, convey my very sincere thanks. They, as  
22 I say, have been responsible in part for the preparation  
23 of the submissions. If this were a preface to a text  
24 I would acknowledge that they are responsible for the  
25 good submissions, but that I alone am responsible for  
26 the bad submissions that may be found there. Unfor-  
27 tunately, that isn't true; they are responsible for the  
28 bad submissions too. But I am very grateful for their  
29 work and I think that the Inquiry process owes them a  
30 great deal.



1                   The other debt I have to  
2 discharge is harder to discharge and that is to --  
3 it's harder to discharge because it's more uncharacter-  
4 istic, and that is to pay what I think is a deserved  
5 tribute to the lawyers and the lay persons who have  
6 at this Inquiry represented each of the participants.  
7 We're almost at the stage where we can invite Mr.  
8 Templeton and Mrs. MacQuarrie to take a place at the  
9 bar , if their self-respect permitted it.

10                   When the Inquiry process began  
11 no one involved in this process on our side had any  
12 idea about how an Inquiry should be run, how it should  
13 be staffed, how its objectives should be attained, and  
14 we began by calling a meeting of counsel and the lay  
15 persons who were going to represent each of the par-  
16 ticipants. We've had meetings with them regularly  
17 since, and it is hard for me to imagine a more indus-  
18 trious and fairer group of people than met with us on  
19 those occasions. It's significant, for example, if  
20 you recognize that the thousands of documents that  
21 were filed, the hundreds of witnesses that were heard,  
22 the millions, I suppose, of relevant and irrelevant  
23 questions that were asked, it's significant that in  
24 that process virtually everything was done at the  
25 Inquiry by consent of the participants through their  
26 counsel, whether that counsel be lay or professional;  
27 and to me it is a real tribute to the fair-mindedness  
28 and the dedication of all of them that that was  
29 possible. It goes without saying that that attitude  
30 that each of them displayed has made our task measurably





1 easier than it would have been; so I owe them my  
2 thanks.

3 (LETTER FROM METIS ASSOCIATION OF N.W.T. TO  
4 COMMISSION MARKED EXHIBIT 889)

5 (COMMISSION COUNSEL'S SUBMISSION MARKED EXHIBIT 890)  
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1                   Now, sir, we have filed our  
2       submissions to you and in the document before you, you  
3       will find submissions, some more detailed than others,  
4       on I think virtually all the significant questions that  
5       have come before the Inquiry and about which evidence  
6       of concern has been lead.

7                   I don't propose even were it  
8       possible to read or to sketch out those recommendations.  
9       We have purposely made the recommendations hopefully  
10      clear, and we have provided within the text an analysis,  
11      sometimes again in more detail in some cases than in  
12      others, of the problem, of the concern, and a rationali-  
13      zation of the submission we make.

14                  I do think it would be useful,  
15      however, to refer to a number of the issues that we  
16      have approached. It was said that in the last minutes  
17      before death, a drowning man sees his entire life pass  
18      before him, and I want to emphasize to you that I see  
19      my role today as not detailing in any fashion what is  
20      in this volume, but simply of highlighting a number of  
21      concerns and number of recommendations that we think are  
22      significant.

23                  The first to which I would like  
24      to turn is location and routing, which is found in the  
25      general section on project design and construction. I'd  
26      like to deal just briefly with our proposal with respect  
27      to routing of that portion of Arctic Gas' proposed  
28      route that runs across the northern Yukon. It is, as  
29      you will see, our recommendation in general terms, that  
30      in order to protect the unique environment of the northern



1 Yukon and the Mackenzie Delta, as well as the way of  
2 life of the native people in this region, and particularly  
3 the native people in Old Crow, it is our submission  
4 that the Prudhoe Bay Gas Pipeline should not cross the  
5 northern Yukon along either the coastal or the interior  
6 route, but rather should follow another route to the  
7 South.

8 In the discussion which  
9 supports that recommendation, we attempt to set out the  
10 considerations which, in our respectful view, make that  
11 the only sound conclusion to which the Inquiry, on the  
12 basis of the evidence before it, can come. It is  
13 clear, it is admitted by the applicant, Artic Gas,  
14 and conceded by all the other participants that the  
15 coastal plain along the Yukon is in Canada a unique  
16 phenomena which is an important area for caribou, for  
17 birds of a variety of types, and that the risk of  
18 environmental damage on that plain is a risk that  
19 simply cannot be borne, and that a gas pipeline, if  
20 followed as the guidelines appear to contemplate at  
21 some later time, by the potential for an oil pipeline,  
22 there is little assurance in the evidence that those  
23 works can be constructed and operated without sub-  
24 stantial environmental damage.

25 The people of Old Crow, on the  
26 other hand, have made it as plain to this Inquiry as  
27 words can make it, that a gas pipeline along the  
28 interior route proposed is unacceptable, not only in  
29 terms of the mammals and birds of that area, but in  
30 terms of the manner in which they envisage their own





1 society and its relationship to ours.

2 Now, that being so, what  
3 follows from that? What follows from that respectfully  
4 in our view is that as a condition of a permit, Arctic  
5 Gas should be requested to investigate a more southerly  
6 route in order to carry gas from Prudhoe Bay to its  
7 pipeline down the Mackenzie Valley.



The evidence, as you will be aware, has pin-pointed the possibilities of a more southerly route and in addition, of course, to the Fairbanks corridor. I want to make it plain that while Commission counsel's submissions include the observation that the Fairbanks corridor appears to do less environmental damage, poses less environmental risk than either the coastal plain or the interior route, that it is not possible, in my respectful submission, for the Inquiry to deal more affirmatively with that possibility:

(a) because it is not within its terms of reference, but secondly, because it has not been possible to do any kind of socio-economic analysis of the ramifications of a pipeline along that route.

So, in my respectful view, the best we can conclude on the application that is before you is that the route over the coastal plain or over the interior as proposed is not acceptable.

Now, we go on, having said that, to list the conditions that should attach in the event that you should conclude that our first submission is wrong and that a pipeline should be permitted on either one of those routes, and I don't propose to detail those recommendations. They are set out in full in our submission, except to say that it follows that we regard those proposed conditions as absolutely fundamental, bearing in mind the inherent risks if a pipeline is built on either of the proposed routes.



Now, let me turn to another matter. Much of the evidence at the Inquiry has been geotechnical in nature and has concerned not only the way in which the pipeline will be built, but the engineering and geotechnical solutions to environmental and social concerns or problems, and we have heard over many months from Arctic Gas and Foothills what they propose in terms of geotechnical and engineering solutions for concrete problems. Those have been analyzed before you; they've been explained by their proponents, they've been analyzed, they've been criticized fully in the evidence.

But in our respectful submission that is not enough. At the end of the Inquiry it is conceivable that we still face a project, whether sponsored by Arctic Gas or Foothills, which will commence with very little precedent on which to base it. The problems of engineering a pipeline and constructing it in this climate, in this place, are in many aspects novel and it is no discredit to the engineers and the experts who have given evidence before you to acknowledge that fact.

That being the case, in our respectful submission, it is of real importance that a Geotechnical Review Board should be established to examine and review all engineering works, detailed design, construction procedures, field organization, and monitoring methods involving matters lacking precedent and experience, and we propose in our recommendations that a particular composition for that



Review Board and spell out in some detail the functions that in our respectful view it should discharge.

We think it's important not only because of the lack of precedent in many of the things that are being undertaken, but because of the limited knowledge that must exist of actual field conditions when the project is commenced.

It is clear, I think, that solutions which are now regarded as satisfactory may appear to be inadequate as the project goes ahead, and problems which have not been confronted as yet may develop and require analysis and satisfactory solution. It's our respectful view that the best public assurance that this is effectively done is the creation of a Geotechnical Review Board appointed by and reporting to the authority.

Now, when Arctic Gas' geotechnical panel gave evidence, we put to them in cross-examination the possibility of the establishment of a Board such as this, and asked them to comment on it, bearing in mind the experience that has occurred with respect to such a Board at British Columbia Hydro in connection with its works. I think it is fair to say that the members of the geotechnical panel did not think that a Geotechnical Review Board was either necessary or perhaps even desirable.

Now that was almost a year ago, if not longer, and I think we can perhaps recognize as a result of recent events that that judgment may have been premature.





No one criticizes and no one can criticize Arctic Gas for failing to be assertive and innovative about its engineering and geotechnical work. There is no doubt that Arctic Gas and Foothills between them represent a team of experts in these areas that is non-existent anywhere else in Canada and perhaps in North America, and there is no doubt that available to them is the greatest reserve of talent in these areas that has ever been amassed.



1                   It is also significant to  
2 recognize that errors will be made and mistakes will  
3 be found. It is not insignificant, as I understand  
4 it, that the laboratory malfunction which Arctic Gas  
5 recently told us about in connection with their frost  
6 heave experiments and which they brought quickly to the  
7 attention of the Inquiry was a malfunction that was  
8 first observed not by one, as I understand it, of that  
9 great reserve of talent, but rather by an outsider  
10 reviewing and examining the work of the applicant.

11                   Now, it's to the credit of  
12 Arctic Gas that that work was reviewed by an outsider,  
13 and it is precisely that kind of process that we  
14 contemplate when we propose a geotechnical review  
15 board. It goes without saying that engineering and  
16 geotechnical solutions to problems are in the last  
17 analysis the best chance that this project has to  
18 minimize environmental and social damage, and because  
19 of the importance of these matters, it seems to me  
20 respectfully that the public is entitled to the  
21 assurance that they have been independently examined  
22 and reviewed.

23                   Now, let me turn to a third  
24 matter. In our chapters on socio-economic matters we  
25 have--

26                   THE COMMISSIONER: Excuse me,  
27 Mr. Scott. In view of the fact that Arctic Gas'  
28 experiments to determine the best way of dealing with  
29 this problem of frost heave has not yet been completed,  
30 it is, of course, out of the question for this Inquiry



1 to carry out the functions that a geotechnical review  
2 board would have to. That could only be done by  
3 prolonging the life of the Inquiry, which is something  
4 no one is seeking to do.

5 Is there any reason why those  
6 functions could not be appropriately carried out by the  
7 National Energy Board, in your view, or are they likely  
8 to be faced so far as, you know, with that very same  
9 problem that we are? They are in the midst of their  
10 hearings. They are no doubt anxious to complete them  
11 and once the hearings are completed, they are in no  
12 position to carry out the functions of a geotechnical  
13 review board. Would you comment on that?

14 MR. SCOTT: Sir, it's  
15 conceivable and indeed perhaps it's likely that because  
16 of the time constraints, the National Energy Board will  
17 be in a better position to deal definitively with  
18 problems associated with frost heave, but the difficulty  
19 that I desire to pinpoint by this recommendation is that--  
20 and frost heave is only one of an example of a dozen  
21 or more, that these problems are never solved in the  
22 sense that the layman perceives of solving a problem.  
23 You know, whether the issue be river crossings and  
24 engineering designs for those crossings or whether it  
25 be questions of slope stability, or frost heave, or the  
26 southern limit of chilling or any of the engineering  
27 or geotechnical questions that were raised, the book  
28 is never closed on those problems.

29 Now, obviously when one gets  
30 to final design, which is a stage to which we refer in





1 our submissions, a determination, an affirmative  
2 determination has to be made about how you confront them,  
3 and that's as close to the moment of truth I presume as  
4 you get, at least until you're in the field. Our  
5 concept is to recognize that there is an element, it's  
6 not a fallibility per se, but an element of uncertainty,  
and experiential lack in this whole field which may lead  
8 to important modifications at final design or even  
9 after, and that it is beyond the ability of an Inquiry,  
10 whether the Inquiry be your's or the National Energy  
11 Board's, to predict what the right answer at final  
12 design will be. All we're suggesting is that being the  
13 way it is in engineering and geotechnical matters,  
14 there should be, for public assurance and certainty and  
15 for the integrity of the exercise, an ability of  
16 outsiders, independent outsiders of experience and  
17 skill, to review the studies and the work and the  
18 proposals that are made at that stage of the process.

19 So, it seems to me that even  
20 if, for example, even if the National Energy Board were  
21 not able to "solve" the frost heave problem, it is  
22 something that will ultimately have to be approached  
23 at final design and the existence of a geotechnical  
24 review board will provide an additional assurance that  
25 the response that is made is an appropriate one, and  
26 that's really why we submit it to you for your  
27 consideration.

28 As I say, Arctic Gas' witnesses  
29 initially were not impressed by the proposal. That  
30 doesn't trouble us unduly and we're confident that in the



1 light of recent experience, they will begin to look  
2 more favorably on this kind of proposal. Now, sir, in  
3 the socio-economic section, we deal with a number  
4 of matters of very great importance and I don't propose  
5 to highlight any of them for you with two exceptions.  
6 The first is the proposal that is made for employment  
7 and training.



1                   You will recall, sir, that  
2 the guidelines contemplate the development of a policy  
3 in that area, and further contemplate that efforts will  
4 be made to assure that people who live and work in the  
5 Northwest Territories and the Yukon will have at least  
6 an equal opportunity to obtain pipeline or pipeline-  
7 related jobs and that some training will be provided  
8 to assure equality of opportunity insofar as that can  
9 be done.

10                   Our submissions take that  
11 seriously, take that obligation seriously, and as a  
12 consequence we have -- and at the risk of some detail  
13 -- we have made a proposal for a manpower delivery  
14 system which, if instituted, will give preference in  
15 employment on the pipeline or on pipeline-related work  
16 to people who live in the Northwest Territories and in  
17 the Yukon.

18                   In addition, the delivery  
19 system that we propose in our respectful view avoids  
20 a number of difficulties that have been exhibited in  
21 Alaska and makes the union role in manpower delivery  
22 an important, indeed a critically important one, but  
23 not a dominant one.

24                   Now, the manpower delivery  
25 system that we contemplate you will see from the precise  
26 proposal may threaten to create a bureaucracy of some  
27 proportions in order to do its work. I'd like to  
28 make two observations about that because already this  
29 submission has been the object of some criticism.

30                   The first is that in projects



1 of this type, notwithstanding the best will in the  
2 world /which I'm sure both the applicants have, there is frequently  
3 inadequate performance; and it's because we take the  
4 guidelines seriously, not because we think working  
5 on pipelines is the most super job in the world, but  
6 because we take the guidelines seriously that we have  
7 been disposed to recommend to you the creation of  
8 a fairly elaborate scheme to assure the very thing that  
9 both of the applicants have promised insofar as it can  
10 be assured. That takes manpower and it takes a kind of  
11 bureaucracy, and -- but if the objective is a serious  
12 and an important one, that's a burden that simply must  
13 be borne.

14 In the second place, we have  
15 attempted in our model for a manpower delivery system  
16 to permit the institution to self-destruct after a  
17 period of time and its obligations to be carried on  
18 by the traditional governmental agencies in the manpower  
19 field.

20 Now with that, let me say  
21 respectfully that our submission contemplates that  
22 the coverage of the system should apply to construction  
23 of a gas pipeline, compressor stations, gas plants,  
24 support and other pipeline project-related ancillary  
25 facilities, and to exploration, development and produc-  
26 tion, operations and maintenance of a natural gas  
27 industry and transportation system.

28 We also contemplate that it  
29 should apply to Mackenzie Valley communities and such  
30 other communities in the Northwest Territories and





1 Yukon Territories as wish to be included under a man-  
2 power delivery and employment service, and at the  
3 very least, it shall include communities in the District  
4 of Mackenzie and the Northern Yukon.

5 Now what it does in the  
6 proposal is that it creates two kinds of preference  
7 for employment.

8 The first is for what we have  
9 called a permanent northern resident who is defined  
10 as a person who has resided in the Northwest Territories  
11 on a continuous basis for ten years immediately prior  
12 to the date upon which the right-of-way permit is  
13 granted, or who has resided for 75% of his or her life  
14 in the Northwest Territories or if a minor, whose parent  
15 has resided 75% of his or her life in the Northwest  
16 Territories.

17 A northern resident, the  
18 second category, is defined as a person who has  
19 resided in the Northwest Territories on a continuous  
20 basis for one year immediately prior to the date upon  
21 which a right-of-way permit is granted; and the scheme  
22 fundamentally, is that no employment will be granted  
23 in the Northwest Territories to an applicant in the  
24 Northwest Territories unless he be either a permanent  
25 northern resident or a northern resident, and that a  
26 person in the Northwest Territories who falls within  
27 either of those categories is referred by the delivery  
28 system to the project and obtains employment on an  
29 absolutely preferential basis, and you will see that  
30 the scheme also builds in large financial penalties



1 imposed on either the project or the trade union if  
2 that preference does not assure union membership and  
3 the job.

4 Now, it is true that the  
5 scheme is a complicated one but it seems to me that if  
6 the objective is a serious one, the response will lead  
7 to some complications.

8 We've also been conscious  
9 of unfortunate experiences in other jurisdictions that  
10 have led us to a slightly more elaborate model but  
11 perhaps in the long run a simpler model than presently  
12 exists, for example, in Alaska.

13 I know my friends will have  
14 comments to make about it and we for our part will be  
15 grateful to hear them.

16 Now let me turn to one other  
17 matter, and that is regulation of the project. We in  
18 our submissions have a long section on project regulation  
19 and enforcement, and our concern here has been that  
20 the evidence before the Inquiry indicates to us that  
21 a new approach to regulation and control is needed when  
22 confronting a project of this proportion in this place  
23 at this time. We adopt what has been said by other  
24 participants that the new approach must involve the  
25 use of a single regulatory agency, and we propose  
26 such an agency again in some detail, which will absorb  
27 for a given time frame the existing regulatory powers  
28 of all levels of government and the new regulatory  
29 capacities that are contemplated by the other recommen-  
30 dations.



It is also our submission that the government for reasons that Mr. Templeton has carefully outlined should proceed as early as possible to establish this authority and its mandate so that it will be available and at work, not only for construction, but what is equally critical at the various design stages to which any project such as this will submit after permit is granted.

We are also conscious that the authority should not be one, in so far as this is possible, in which one group of experts have a dominant role at the expense of others. It's our respectful submission and we spell out how this might be done, that in the authority, engineering and environmental functions should be regarded as on an equal footing and one should not under any circumstances dominate to exclusion the other.

Now, I also observe, so that there will be no misunderstanding, that we are concerned not only in the authority concerned about a contest between environmental and engineering functions, we're concerned also about social controls and it's the basis of our scheme, as we see it, that each of these issues should--each of these disciplines should be perceived as being on an equal footing in terms of the decision-making capacity of the authority.

We also, in our submission, list the functions that we think the authority should engage in. First of all, preliminary design review. The second, final design review. Thirdly, notice to





1 Construct, which is a scheme whereby on-sight permission  
2 to proceed is granted by the agency and lastly,  
3 surveillance of construction activities. We deal with  
4 an appeal procedure in the event that there is dis-  
5 satisfaction with determinations that are made by the  
6 authority at any one of those stages.

7 We deal with the establishment  
8 of a monitoring function as well. We have concluded,  
9 after hearing the evidence, that it is not in the public  
10 interest to have the government appoint an independent  
11 public auditor group. We've heard a good deal of  
12 evidence about this kind of group, particularly in  
13 Alaska and it is our respectful conclusion that for a  
14 variety of reasons, such groups as that appear to be  
15 largely ineffective in being able to monitor large  
16 construction projects of this type.

17 We have proposed instead that  
18 the agency should be so structured as to provide for  
19 active third party involvement by third parties whose  
20 interests are affected by the regulated projects and,  
21 of course, we're thinking here not only of environmental  
22 groups and northern native groups but communities in the  
23 greater impact region as well. This active participation,  
24 in our respectful view, can be affected in a number of  
25 ways.

26 First of all, the government  
27 should invite environmental groups with a declared  
28 interest in the north to appoint a representative of  
29 their interests to sit on the senior agency committees  
30 that are charged with the control functions I've outlined.



1 This representative would be given the same access to  
2 information, to research capacities and the same  
3 decision-making power as any other member of the committee.

4 The government should make the  
5 same invitation to each of the territorial native groups  
6 in the Northwest Territories and the Yukon and the  
7 communities in the greater impact region. These  
8 representatives becoming members of the authority would  
9 be appropriatively remunerated for their services, and  
10 would be appointed to terms of sufficient length to  
11 ensure their effectiveness.

12 Our second view is that the  
13 special status of native northerners should be recognized  
14 in the structure and responsibility of the agency,  
15 either by participation on the board of directors to which  
16 the head of the agency is answerable or by some  
17 comparable scheme.

18 Thirdly, the necessity of  
19 facilitating public interest intervention in the operation  
20 of the agency about which we heard in evidence and we  
21 judge to be important. We propose that this kind of  
22 intervention must be recognized as an integral part of  
23 the regulatory system. It's to be regarded also as  
24 entirely separate and different from the participation  
25 of interested parties and the functions of the agency  
26 that I've earlier referred to.

27 It will be effective only if  
28 it is informed by a continuous presence sufficient to  
29 monitor the operations of the agency. It follows that  
30 funding will have to be provided in adequate amounts so



1 that this kind of third party intervention in the public  
2 interest can be appropriately assured. Now, we go on  
3 in some detail to establish the responsibilities of the  
4 agency and I think it will be recognized that without  
5 an authority of some type, such as has been contemplated,  
6 much of the important regulatory functions that are  
7 contemplated in the balance of the submission either  
8 will not be performed or will be performed inadequately.

9 So, it is difficult to over-  
10 stress the importance of this kind of solution as it's  
11 found in our submission. Now, let me turn to one last  
12 matter and that's the subject of land claims. In the  
13 socio-economic chapter we have dealt at considerable  
14 length with the issue of land claims. And you will  
15 recall, sir, that in one of your preliminary rulings,  
16 you made it clear to the participants and to the  
17 public that at least you were entitled to ask the  
18 question whether construction of this project, before  
19 a settlement of land claims, would effect a prejudice  
20 to the parties negotiating that settlement.

21 We have taken that question  
22 that you have posed and have responded, and our  
23 response is an unequivocal yes; that in our respectful  
24 view the construction of the pipeline before a  
25 settlement of land claims will prejudice the parties  
26 to the negotiation and settlement of those claims.  
27 In the section of our submission that deal with that  
28 complicated and difficult issue we touch, in some  
29 detail, on four matters.

30 First of all, the nature and



1 extent of the land claim settlement which the native  
2 people are seeking. That, it seems to me, is critical  
3 and at the heart of the answer to the question that you  
4 have posed for the Inquiry. If it be true, as we  
5 perceive it, that the proposal that is made is not a  
6 proposal for an abandonment of land to the authority  
7 of the government, but is rather a proposal for the  
8 recognition of title to land, it becomes clear that the  
9 risk of prejudice on a number of fronts is very great.

10 In the second portion of the  
11 paper we deal with the nature of the prejudice and the  
12 implications of constructing the pipeline prior to  
13 settlement of claim. In the third portion of the  
14 paper we analyze the measures which can be taken, if  
15 any, to ameliorate or avoid the prejudice of prior  
16 construction, particularly measures which can be  
17 formulated as terms and conditions of this Inquiry.

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And fourth, in the fourth portion we deal with the implications of concurrent negotiation and settlement of the land claims with construction of the pipeline; and as I have said, our response is that bearing in mind the way one of the parties to the negotiations at least concedes the nature of land claims, it is difficult, in our respectful view, to conclude that those negotiations will not be prejudiced by prior construction.

But we want to observe that we have not, as has been wrongly reported in the press, asserted that we have recommended any moratorium or any timetable in our submissions. We haven't done so. We have simply answered the question that is appropriately asked, determined that there will be prejudice, and then gone on to develop inadequately, it may be true, ameliorative responses to the social problems that are associated with a project of this dimension.

Now, sir, I've hit only on five or six of the dozens of things that are dealt with in the submissions. I will be grateful to my colleagues if they will, for our own interest if for no other reason, be frank and brutal in their analysis of what we have submitted, as we may be if we get an opportunity to reply when their submissions have been heard.

When we opened this Inquiry on March 3rd, of 1975, and I made a short opening remark, I promised the Inquiry only two things: (1) that insofar as it was possible, and subject to



your direction, the Inquiry would be open, and open I think it has been, and

(2) that we, Commission Counsel, intended to take an active role in the process in terms of examining, cross-examining, leading evidence, and making submissions, regardless of whose ox would be gored or attempt to be gored in that process.

12 It is in that context that we make these submissions to you. It goes without saying that they represent the views of Commission Counsel and some members of the Inquiry Appraisal Team, at a given time in the Inquiry process, and over the next couple of days we will listen eagerly to criticism and rebuke from my friends.

Now, sir, that's all I have to say at this stage. As I've indicated to you, we propose if you please, to call on each of the applicants in turn to make their submissions, and then the other participants in an order that we have determined. So perhaps at this stage I might call on Mr. Genest.

THE COMMISSIONER: Before we call on Mr. Genest, you said that upon environmental grounds that you and the Inquiry Appraisal Team were opposed to the Arctic Gas Pipeline from Prudhoe Bay being built along the Arctic Coast of the Yukon and that on grounds that it would have very grave social impact on the people of Old Crow, you opposed a construction of the Arctic Gas Pipeline from Prudhoe Bay along the interior route. You said that it should proceed along a route farther south. Is there any alternative



so far as you are willing to say this afternoon, for the delivery of Prudhoe Bay gas to the lower 48 except the Fairbanks route along the Alaska Highway if the two routes that have been proposed to cross the Northern Yukon were denied Arctic Gas?

MR. SCOTT: You will recall the evidence of Dr. Calef in which he proposed a route that took account of, I think as he saw it, of the caribou concern and the concerns of the people of Old Crow. Now that route, I think to be fair to him, was only roughly drawn. I mean he's not an engineer or a surveyor but he did propose a route further to the south. I suppose there is some question whether that is far enough to the south; but it is at least an alternative that in our respectful submission Arctic Gas should, as a condition of its permit, be required to examine, to an alternative to the interior or the coastal routes, as they now propose.

THE COMMISSIONER: Thank you. I recall Dr. Calef's evidence on that matter and Dr. McTaggart-Cowan made the same proposal when he spoke on behalf of the Environment Protection Board.

Right, well, Mr. Genest?

MR. GENEST: Thank you, Mr. Commissioner. I'm a little diffident because of my prolonged absence from these hearings. I'm glad to be back. I hope I'm not going to be considered at this stage an interloper, sir, as I left as Falstaff and coming back trying to look like Cassius. I leave it to you as to which is the best image.





Sir, before I launch into my submissions, it might be helpful if I outlined the course my oral argument is going to follow, because I do not propose to take you inch by inch or foot by foot through the outline of our submission. Many of the submissions we have to make are stated there. There is not much that could be usefully added by harangue on their subject and I do not propose to do so.

I rather propose to deal, sir, with what we in Arctic Gas consider some major issues as they have emerged especially after reading those of the submissions of the other parties that have been available to us in the short time since they were produced.

(SUBMISSION BY CANADIAN ARCTIC GAS MARKED  
EXHIBIT 891)

MR. GENEST: What we propose to do, sir, we have received from the participants a very large number of very specific recommendations. Mr. Scott in particular has produced 800 pages. Some of them are very detailed. A large number of them, on perusal, we find that we can be in agreement with. There are another large number in respect of which we state a concern with which we agree. We may disagree with what is the best solution for meeting these concerns. Others, of course, we are in total disagreement with.

So, sir, with your leave, what we propose to do, and I think it would be important for your Inquiry to have this available in



12 writing the terms and conditions that you see fit as recommending to be imposed on the granting of right-of-way, we think that you should have in hand the detailed comments of the applicant who will be affected by almost every one of those terms and conditions. So our people, sir, are at work preparing a detailed response to Commission Counsel's recommendations. They will treat in the same way the CARC submissions, the Yukon Brotherhood submissions, the COPE submissions where there are conditions that affect us that are relevant to us, that may be different or may be a departure from Mr. Scott's recommendations.

I ask leave to do that. I think that the best way to do that is not by standing up on the rostrum and reading them. I will ask leave to file these with the Inquiry as they are proposed. Hopefully I will be in a position to file some of them in a couple of days during the course of this week, and the rest will come very shortly, I hope within ten days to two weeks.

I do think, sir, it is important that you should have the other side of the coin on these recommendations. Many of them are in such detail that you have not had much assistance from witnesses as to the merits or demerits of a particular specific proposal, and so I respectfully ask the leave of Commission to do that. I think you indicated to us on October 15th that this would be one method of rebutting. You invited us all to tell you what we



thought of proposed terms and conditions, and I can think of no manageable way to do it than by taking, no better way than by taking them one at a time and giving you our comments on them.

So with your leave that's what I would propose to do, and of course we will make available these responses to the participants.



1 THE COMMISSIONER: I think  
2 that's the right thing to do and I had expected when  
3 I directed Commission Counsel and his staff to prepare  
4 a complete set of terms and conditions, that it would  
5 likely be necessary to provide additional time to the  
6 other parties to respond and that that would necessarily  
7 have to be done in writing. And subject to what the  
8 other participants may say about your suggestion, I  
9 certainly would be prepared to go along with it, and  
10 perhaps by the end of the week we might be able to  
11 reach some kind of consensus about the date when those  
12 submissions should finally be--

13 MR. GENEST: I'd probably be  
14 in a better position to advise you of our position on  
15 that then too, sir.

16 Now, as to the argument to be  
17 presented today, sir, perhaps it would be--

18 THE COMMISSIONER: Excuse me,  
19 Mr. Genest. I think that it's worthwhile making this  
20 point, if I may, just before you continue. In the  
21 normal course of events in an Inquiry such as this,  
22 when the hearings are ended the Commissioner will sit  
23 down with his staff and say now what do you think?

24 The other participants of the  
25 Inquiry have no way of knowing what the staff happens  
26 to think about all of these things. In this case,  
27 I felt it would help me if I said to the staff, before  
28 you tell me what you think, put it in writing and let  
29 everybody else know; the pipeline companies, the native  
30 organizations, the environmental groups, the Chamber of





1 Commerce, the municipalities, and let them, during the  
2 course of final argument or thereafter, take a run at  
3 the proposal that you make.

4 That is why we have done this.  
5 I think it's the fair way to proceed and let me also  
6 say that so far as I'm concerned, it is the way that  
7 is likely to help me most because it means that the  
8 staff of the Inquiry have to run the same gauntlet  
9 when they're making their proposals to the Commissioner  
10 as everybody else has to do. I'm glad that Arctic  
11 Gas is eager to respond in the way that I contemplated  
12 when I made that direction. Anyway, carry on, sir.

13 MR. GENEST: Well, sir, I  
14 wonder if I might just follow up on what you've just  
15 said because it seems to me that you've touched a very  
16 important aspect and a very important area of concern  
17 to Arctic Gas. Not only do we think it appropriate  
18 that you have taken the approach to receiving the  
19 views of the parties on terms and conditions that you  
20 have, we respectfully submit, sir, that it's absolutely  
21 essential because of the particular function that you  
22 have in recommending terms and conditions.

23 Now, what you have to date  
24 is a set of terms and conditions that are being  
25 presented in an adversary fashion. In Mr. Scott's case  
26 especially in the case of the recommendations by his  
27 staff, you have before you extremely detailed  
28 recommendations. You have mathematical formula to be  
29 applied in the area of fish protection and siltation  
30 and sedimentation. You've heard no evidence, no reaction



1 from pipeliners or from engineers who may have a  
2 different view. I know that the particular term and  
3 condition that I have in mind, we have a lot of  
4 questions about. We don't agree with it. We don't  
5 think it's appropriate. But you're in no position,  
6 with respect sir, to pass judgments on the technical  
7 specifications of a term and condition. I was going  
8 to mention this later in argument but I think it's an  
9 appropriate time to put this point now.

10 We think that there is a  
11 basic principle that should motivate you when you go to  
12 write the terms and conditions. We strongly submit,  
13 sir, that you should avoid trying to write the manual,  
14 that you should avoid trying to set down like Mr.  
15 Scott has or his staff have set down in many areas, a  
16 very detailed specification. The fish one springs to  
17 mind again because you have to go through about eight  
18 pages of calculations and formulas that make our  
19 C sub V discussions look like child's play.

20 In my submission, it's not  
21 appropriate to have a term and condition of that kind  
22 imposed on the right-of-way agreement. Those are the  
23 functions of the agency working in cooperation with the  
24 interested parties. In fact, on the subject of  
25 siltation, Dr. Sprague, who gave evidence on behalf of  
26 the Inquiry staff, has said this very thing. He says  
27 that when you work out the numbers you have to sit  
28 down with the people that are affected. You cannot work  
29 these things out in an adversary way. Sort of one  
30 set of persons putting their recommendations to a lay



1 tribunal, if I may say so without disrespect, and the  
2 other side saying, well, this is the way it should be.  
3 These have to be worked out around the table together.

4 THE COMMISSIONER: A lay  
5 tribunal, but with legal training.

6 MR. GENEST: I just meant it  
7 in the fishy sense, sir. So, our submission, sir, is  
8 that when you come to write these terms and conditions,  
9 your object should be to state the concern, to recommend  
10 that steps that the agency, we are assuming throughout  
11 these discussions that there is going to be an agency  
12 that is going to monitor and approve final design, and  
13 see that the stipulations are carried out; but the  
14 recommendation should be to state their concern, to  
15 recommend the objective that is sought to be achieved  
16 by a specification or a term and condition and leave  
17 it to the agency with the interested parties to work out  
18 in a non-adversary way the detailed specifications.

19 Engineers will need those.  
20 Engineers will not be able to build the pipeline without  
21 saying well, what Judge Berger said that we should look  
22 after bank erosion, that this particular river isn't  
23 much help. I need a plan. Those plans are going to  
24 be worked out with the agency when it comes to review  
25 the final designs. I submit very strongly that many  
26 of the recommendations put forward and especially by  
27 Commission staff expose you to the danger of espousing  
28 one particular method, one particular specification of  
29 dealing with a problem which may turn out to be not  
30 appropriate, and I urge you, sir, to stay away from that





1 and to deal with the problems in general terms, leaving  
2 it to the agency to work out the exact engineering  
3 way that is going to be done or accomplished.

4 THE COMMISSIONER: Mr. Gibbs  
5 Mr. Templeton and Mr. Anthony you might wish when we reach you  
6 to comment on what Mr. Genest has just said.

7 MR. GENEST: Sir, the topics  
8 that I am going to deal with and I'm going to be  
9 assisted by Mr. Marshall are the following. I want  
10 to deal first in a socio-economic area with three or  
11 four issues which we consider fundamental and basic.  
12 They are first what your findings ought to be as to the  
13 state of northern society and its economic alternatives,  
14 and the place of the pipeline in those alternatives.

15 Secondly, sir, we want to  
16 address the question of native claims. Thirdly, sir,  
17 I wish to address some, but not all, some basic issues  
18 that are raised by the submission of Commission Counsel  
19 relating to the responsibilities of government and the  
20 company for mitigating pipeline impact, the funding  
21 of impact costs, which seem to us to raise some  
22 fundamental issues, and the approach used by Commission  
23 staff in their recommendations relating to northern  
24 business.

25 Those are all the socio-economic  
26 subjects that I intend to deal with in oral argument.  
27 We will, in our responses to Commission staff submissions  
28 and other submissions deal in detail with each and  
29 every recommendation put forward there.

30 Next, sir, I would like to deal



1 briefly with the concept of the regulatory agency, the  
2 authority that is going to oversee the construction of  
3 this pipeline. Next, sir, I want to address some  
4 remarks on the routing of the pipeline including the  
5 suggestion, at least what I was interpreting as a  
6 strong recommendation by Mr. Scott that we go down the  
7 Fairbanks corridor and the Dempster Highway, but which  
8 may be less than that after his remarks today.

9 I also wish to deal with  
10 recommendations relating to the North Slope. In both  
11 these respects, Mr. Marshall will follow me after I'm  
12 through my piece to amplify the submissions I'm making.  
13 I want to deal with frost heave and some problems in  
14 Shallow Bay. I want to deal briefly with the corridor  
15 concept and the suitability of the corridors we have  
16 proposed for an oil line.

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I have some remarks to make on the burden of proof and the data base upon which you must make your findings, and in particular I want to make some comments with some suggestions we've had for vast amounts of further research.

That will conclude my submissions. Mr. Marshall has some submissions to make on more detailed considerations affecting the choice of route, the choice of the North Slope, the so-called Fairbanks-Dempster route, the circum delta route, the cross-delta route, the interior route.

12 | Mr. Marshall will discuss some particular geotechnical concerns which include the last point of cold flow recommendations as to where that should be, and there are -- well, I'll let him explain them to you.

Some recommendations regarding standard project flood in geotechnical design and interruptions of sub-surface flow. Mr. Marshall will also deal with problems -- what we say are not problems -- relating to North Slope construction. He will deal with operations and maintenance.

That really are the subjects that we propose to touch orally today. The rest will be in our written submissions.

So if I may commence, sir, with the socio-economic submissions that I have to make, I want to deal first with what your findings ought to be in relation to the state of northern society and its alternatives that lie before it.



I do this first, sir, because in my submission it is the fundamental question. In my submission, the validity of almost all major findings in the socio-economic area depend upon the true assessment of the state of northern society and the options that lie before it. From your conclusions in this regard will flow your conclusions and your findings relating to the alternatives which face northern society, the likely impacts, positive or negative, that are likely to occur, and the effectiveness or otherwise of proposed terms and conditions.

12

If judgment and perception of this first issue is faulty, it's my submission that the conclusions that we will draw may well be faulty. In particular, sir, it is my submission that your findings in this area will have an important bearing upon the recommendations you should make in relation to the issue of native claims.

Let me give you -- well, I'm sure you've heard too many times before -- but a very brief summary of the state of native society in the north, and I want to deal with both, the native society and the white society because they have been approached that way in these hearings.

Our submission, sir, is that native society today is in transition, that it is no longer able to support itself purely by living off the resources of the land, that it is heavily dependent upon government welfare, that it is dependent upon a wage component which is at present insufficient to





sustain it. It's a society which has experienced for at least a century a series of changes which has produced these series of dependencies; with the coming of the traders came dependence on their weapons, tools and trade goods. This was followed by a succession of other dependencies on missionaries for salvation, on the R.C.M.P., and then social development or welfare, on nursing stations for health care, on the Department of Education for many increasingly important language and job skills, on government programs for housing and utilities in almost all communities, and on the government as a prime employer in many communities for wage employment.

Now, the social benefits of the many programs introduced by well-intentioned governments produced stronger attraction towards the settlements, luring people from the land where traditional skills have great relevance and value, and relatively independent subsistence was yet possible for those with fortitude and skills.

The move to the settlements has, sir, in our submission, rendered land living skills no longer essential for many, not all, but many native people with the result that the capable -- the capabilities of many of them and particularly the escalating number of young people for self-sufficient survival on the land has been undercut.

Now, sir, for over a century the native people have been told by missionaries, by teachers, by the government, by southern society in



general that they should be abandoning their religion, their languages, their traditions, that the white man's way was a better way and that they should adopt the white man's values and forget their own. Notwithstanding this tremendous pressure, the last decade has seen a resurgence of pride in the native peoples, the realization that what the white man has been telling them about their own culture, their own values, was not true as far as they were concerned. They realized that while they were being exposed to the material benefits of white society they were actually not receiving very much of those benefits and had little or no say in the decisions that affected their future.

The last few years have seen an unparalleled assertion by the natives of the north of their determination to maintain their separate identity, their sense of pride in themselves as a people, and in their traditions and in their language. This resurgence of pride, sir, this resurgence of a sense of identity is on the upswing now, and it is very unlikely, in my submission, that it will go away.

But nevertheless, it's a fact that native society today remains marked by poverty, by poor educational attainment, by primitive services in communities, by inordinately high sickness and death rates, by inadequate recreation facilities, by a host of social problems which you have heard described at considerable length in these hearings.

Now in considering the present state of native society and in appraising the realistic



economic alternatives that lie before it, it is in my submission vital to keep in mind its demographic characteristics. These characteristics, sir, I say with respect, are almost totally ignored in the submissions of Commission Counsel yet they are essential to any assessment of the future of northern native society.

12 Fully one-half of the native population is now under 15 years of age. Three-quarters of the remainder are under 50 years of age. Moreover, the native population is growing very fast, faster than the capacity of the present economy of the north to sustain them. In the Mackenzie District the native population is presently estimated at 16,000, and is expected to grow rapidly in the next decade. For example -- and here I refer to Dr. Hobart's evidence, I believe -- the status native population, that is status indians counted as such in the census, is projected to rise from 8,600 in 1971 to 13,000 by 1983.

The additions to the native population are going to be precisely among those best adapted in terms of motivations, skills, and relative sophistication to permanent employment. The young people who at the same time are least capable of seeking a living on the land -- this is important to bear in mind because in our submission the greatest potential for disillusionment and bitterness lies with them if the employment for which they have been trained and which has been implicitly promised to them fails to





materialize.

Let me move on then, sir, to the native economy. In our submission, sir, it is clear that the ability to resort to the bush economy for gaining of some sustenance from the land itself is highly valued among the native population. I don't need to tell you that. You heard time and time and time and time again in community hearings the value to which the native people attach to their ability to gain some sustenance from the land.

We agree with the witnesses  
12 put forward by the Brotherhood, that its economic value is under-stated by existing economic measurement techniques. There are also in the north small local resource industries, small-scale manufacturing firms, arts and crafts activities in which native groups are very interested. Nevertheless, the evidence, in my submission, is clear beyond argument that a renewable resource oriented economy and the small-scale activities described above are incapable of providing sufficient jobs for the natives, of providing opportunities of sufficient economic growth, of effecting significant reductions in unemployment rates, and most importantly, of providing any kind of support for the anticipated increases in native population which will occur in the age groups which are least adapted to this type of living.



1                   It's our submission, sir, that  
2 the evidence shows that native society has progressed  
3 far beyond the point where it can do without cash income.  
4 In particular, it has progressed far beyond the point  
5 where it can subsist adequately on the cash income  
6 generated by trapping.

7                   In only three of the eleven  
8 small native communities in the pipeline impact zone  
9 did the income from trapping exceed one-fifth of the  
10 total cash income and in no case did it exceed one-  
11 quarter of a total in 1969, the last year for which  
12 such data are available. There again, I refer to Dr.  
13 Hobart's evidence.

14                  The result in that year was a  
15 pitifully low level of family income for native people.  
16 In all of these eleven communities, at least one-third  
17 of the families had no more than \$2,000.00 in monetary  
18 income during the year while in five of these communities  
19 less than one-half had that much cash income. About  
20 fourteen percent of the total income in these  
21 communities came from transfer payments and in all but  
22 two of these communities, at least one-half of the cash  
23 income was derived from government employment and  
24 transfer payments.

25                  Indeed in the whole area more  
26 than one-half of all cash income was derived from  
27 government employment and transfer payments. Thus, in  
28 our submission, demonstrating eloquently the weakness  
29 of development of a private sector in that society.  
30 Now, I refer you by way of contrast to this picture of



massive unemployment and poverty which exists in most of the Mackenzie communities to the evidence of Dr. Hobart as to the picture in Arctic Bay, a small settlement on northern Baffin Island which is at least as dedicated to the harvesting of renewable resources as any of the delta and valley communities.

Here wage employment was generously available. During the 1975-1976 employment year, the wage income from the private sector alone was almost \$600,000.00. About \$2,000.00 per capita. Hobart's data from Arctic Bay, Coppermine, and Pond Inlet as well as the situation in the Mackenzie Delta in recent years show clearly the extent to which native people are eager for the wage employment that has recently become available.

There's something here I want to say with diffidence, sir, because I think it runs contrary to what you have heard in the community hearings. You will have to make your judgment as to the weight that you are going to have to give to that. But I ask that you should put in the scale when coming to your conclusion what Dr. Hobart has said that notwithstanding these statements, many people have voted with their feet, as he put it. They have taken the employment when it has been available. They have taken employment and also kept up their traditional activities.

Another important factor, sir, is the question of employment in the oil and gas industry because, in our submission, you will have to weigh the consequences of a recommendation of delay or of



1 no pipeline at all in the Northwest Territories, which  
2 may well result from a route recommendation.

3 The question of employment  
4 in the oil and gas industry is very vitally affected  
5 by this. In our submission, hydrocarbon exploration  
6 employment has contributed significantly to the  
7 employment and wage income of the pipeline impact  
8 zone. This has been particularly true in the delta  
9 but it has benefited the more southerly areas as well  
10 I believe in Inuvik Dr. Hobart gave you some figures  
11 which I would like to just briefly repeat for the  
12 1972-73 season. In that season, \$1,395,500.00 was  
13 earned by 594 job holders and comprised more than  
14 ten percent of the total cash income of the native  
15 people in that area.

16 During the '74-75 exploration  
17 season, about \$2,000,000.00 was paid in wages to  
18 553 job holders with earnings per job amounting to  
19 over \$3,600.00 and these figures refer only to direct  
20 exploration employment. The numbers include a small  
21 number of white employees, but the vast majority are  
22 native.

23 Now, the oil and gas industry  
24 is, of course, supported by very substantial service  
25 industry activity; transportation, communication,  
26 accommodation, et cetera. Thus, the figures I've quoted  
27 above should be increased somewhat in order to  
28 adequately reflect the full contribution of oil and  
29 gas activity in the economy of the North.

30 You've also heard, sir, and I





1 think I've mentioned before a lot of evidence which  
2 indicates that there is a very high degree of dependence  
3 on government transfer payments, on welfare. You've  
4 heard evidence of the demeaning and depressing aspects  
5 of this type of dependency that exists.

6 Let me then now, sir, deal  
7 briefly with what we see as your findings in the area  
8 of white society. There are over 10,000; some say  
9 13,000 white people who reside in the pipeline impact  
10 region. While some of these may be said to be transient  
11 residents of the North, a substantial number of them  
12 have a strong commitment to the North as a place in  
13 which they have put down their roots.

14 They share political aspirations  
15 similar to those expressed by native groups. They want  
16 more local self-determination. They want less dependency  
17 on a far off bureaucracy. Many have wage employment in  
18 the non-renewable resource industry and in related  
19 service industries. Many are local entrepreneurs who  
20 have all of their assets and life savings invested in  
21 their businesses. All of these people have a very  
22 heavy stake in the economic expansion of the North.  
23 Most of them have told the Inquiry that they support  
24 the concept of a pipeline and that they welcome the  
25 development that will come with the construction of the  
26 pipeline.

27 They see the pipeline bringing  
28 with it employment and opportunity which will result in  
29 a more stable and productive economy in the North. They  
30 see a more stable and productive economy as one of the



ways in which they can advance their social and political aspirations.

Sir, those are the considerations I ask you to bear in mind when coming to a conclusion as to what is the state today of society in the North. I would like to now deal briefly with the economic alternatives that face the North. The position of the native groups is that the Commission should recommend that there should be no pipeline until the land claims have been settled.

Until I heard Mr. Scott this afternoon, I thought that position was basically supported by Commission Counsel's staff because my interpretation of their recommendation was that there should be a ten to fifteen year moratorium before a pipeline is allowed to proceed in the North. But all of these submissions, including the analysis of Commission Counsel are silent as to the consequences to the North of a delay or indefinite postponement of pipeline development.

Now, that is one of the things, it seems to us sir, that you must weigh and weigh very carefully in coming to your conclusions. The indefinite deferral of pipeline construction could well carry grave consequences for the welfare of the people of the North, including the native people. I should like to deal with these for a moment because it's our submission, we're all of course painting scenarios of the future, but it's a scenario that could quite likely happen and that you should bear in mind.



1 Now, let me open this by  
2 quoting Commission Counsel, where in Chapter 1 under  
3 the heading "Basic Issues", he states and I quote:

4 "If there were no pipeline, then other events  
5 such as the development of Mackenzie Delta-  
6 Beaufort Sea gas reserves would have no basis  
7 for occurring."

8 This is undoubtedly, sir, a  
9 correct statement. A no pipeline or a pipeline  
10 postponement decision would clearly bring an immediate  
11 halt to exploration-related economic activities. Now,  
12 while Commission Counsel's submission accepts this,  
13 it fails to discuss the consequences. Some of these,  
14 in my submission, are as follows:

- 15 1. There would be an immediate and substantial loss  
16 of employment. I have already referred you to the  
17 numbers of people who derive income from these  
18 activities.
- 19 2. There would undoubtedly be stagnation or failure  
20 of numerous northern business enterprises dependent  
21 upon oil and gas development.
- 22 3. There are no alternative sources of employment  
23 to absorb these losses. There are no other  
24 prospects on the horizon, in our submission, giving  
25 promise of substantial employment, to take those  
26 left jobless and to absorb in addition the  
27 substantial numbers of people who will be entering  
28 the employment market in the next few short years.

29 Now, some witnesses have  
30 proposed a solution to this. The solution, and I refer





1 principally to Dr.--I wasn't here, so I pronounce it  
2 Ruttan or Ruttan, and I'm not sure. That's R-U-T-T-A-N.  
3 I apologize. But the solution that was proposed by  
4 him was that the native peoples should develop and  
5 manage a renewable resource land based economy. This  
6 solution is apparently, as far as I've been able to  
7 ascertain, supported by Commission counsel. But in  
8 my respectful submission, it flies in the face of  
9 economic reality.

10 In my submission, the evidence  
11 is quite clear that this type of economy cannot provide  
12 enough jobs to reduce significantly the existing  
13 unemployment rate and absorb the jobs lost because of  
14 reduction in oil and gas activity. Nor will it satisfy  
15 the expectations of the increasing number of young  
16 native peoples who are coming into the labour market.

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1                   The postponement, the fourth  
2 effects or possible effects that I ask you to weigh,  
3 sir, is the effect on continuing native development.  
4 The native groups have said that one of their main  
5 goals is to establish a viable and creative economy  
6 in the renewable resource sector.

7                   Now, sir, this clearly  
8 requires money produced from oil and gas development.  
9 Professor Watkins said it in evidence, and I'm going  
10 to quote what he said. He said:

11                "A creative viable Dene renewable resource  
12 sector requires both capital goods and Dene  
13 with both traditional and modern skills. Both  
14 of these in turn require money. Hence the  
15 right to alternative development must include  
16 the right to tax the non-renewable resource  
17 sector or impose royalties thereon so as to  
18 fund the Dene economy and the Dene institutions  
19 which will permit of continuing Dene development.

20                "Now, if the postponement of  
21 a pipeline or the indefinite delay of a pipeline or  
22 no pipeline at all is the scenario that will occur,  
23 there will not be that non-renewable sector, at least  
24 not for some years, on which" in my submission Professor  
25 Watkins rightly said,

26                "The Dene, the Inuit, the Yukon Indians, the  
27 Metis must depend if they're going to develop  
28 a viable local economy."

29                Another result, sir, would  
30 be increased reliance on government welfare, the



fifth on my list. It is inevitable that/loss of  
employment and loss of employment opportunities, you  
would have increasingly heavy reliance on welfare  
payments.

Another possible result, sir, would be out-migration. If our submission is right that those hardest hit by being unable to enter the labor market would be those natives born since 1955, whose lifelong experience, in our submission, as shown by the evidence typically prepares them to earn their living in a wage-based economy, if that is correct, that will mean that the Territories cannot support them, and if that is so, in my submission, many can be expected to leave and seek employment in the south. In our submission this will weaken rather than strengthen the native objectives of achieving a strong cultural presence and identity.

This also may have an effect on the native communities themselves, that's the seventh item I wanted to mention. It's our submission that a possible result would be to inflict community losses. Dr. Hobart again testified that,

" It is the interaction of residents of communities that gives rise to feelings of community spirit."

He used the Coppermine experience to illustrate this. There the increased prosperity resulted in increased participation and interaction, so there were more men out of the settlement on rotation employment. Unemployment reverses the pattern, inducing loss of



1 community morale and possibly involving reduced  
2 leadership, declining social control.

3                   Eight, sir, there could be  
4 an effect on political development, and I say this  
5 because the effect of deferral of the pipeline could  
6 well be to create a condition of stagnation in the  
7 north, a continuation of the present dependency, the  
8 present levels of poverty and discontent. It's my  
9 submission that you could consider that this kind of  
10 atmosphere is not conducive to healthy political  
11 development.

12                   Then, sir, I say that --  
13 although I'm sure that this will not meet with universal  
14 approval -- there could be an effect on the native  
15 land claims settlement. A possible effect of a  
16 decision to defer a pipeline pending settlement of  
17 the land claims could be to remove the chief catalyst  
18 which exerts pressure on both sides to arrive at a  
19 satisfactory settlement. In that regard I ask you to  
20 recall, sir, the evidence of John Ciaccia and Chief  
21 Billy Diamond, and Mr. Penn, which you heard in Montreal.  
22 These were all people very closely involved on both sides  
23 of the negotiation of the James Bay settlement. Their  
24 views, which I know are criticized by others, but their  
25 views (and they were the principal actors) is that it  
26 was the imminence of development that really produced  
27 the James Bay settlement, and that without the presence  
28 of that ongoing development, no settlement would have  
29 been achieved.

30                   It is a consideration, sir,





1 again I want to emphasize that I am not trying to  
2 tell you what is going to happen, but I say it should  
3 be weighed in the balance, it's a consideration that  
4 if a pipeline was indefinitely postponed, the question  
5 of land claims settlement, which would still remain  
6 an urgent one for the natives of the north, could  
7 well be put on the back burner by the government because  
8 the urgency will have gone out of the situation. There  
9 are other more immediate political problems, and I  
10 hope I'm not being insulting if I say that politicians  
11 tend to respond to more immediate problems.

12 So that is a consideration I  
13 say you ought to bear in mind.

14 Now, having said that, having  
15 tried to summarize some consequences, some possible  
16 consequences of the no-pipeline development scenario,  
17 I should like to deal, sir, with the possible benefits  
18 that a pipeline development would bring, and I'm very  
19 conscious here of not wanting -- and I may not  
20 succeed -- but I don't want to be seen as the represen-  
21 tative of the big gas company telling the people of  
22 the north what is good for you. A pipeline is good  
23 for you. These are things that they have to decide for  
24 themselves, of course.

25 But I want to bring the  
26 Commission's attention to matters which again must be  
27 weighed in the balance because there are potentials for  
28 great benefit to flow from this pipeline. If it doesn't  
29 go through they will not be there, and in my submission  
30 it would be proper, in fact it would be improper, if I



1 may say so, I expect, for you to ignore these when  
2 considering the conclusions to which you come.

3 Now, it's our submission  
4 that there will be clear advantages produced by  
5 pipeline construction to the people of the north.  
6 We say that these advantages will outweigh the  
7 potentials for harm, and we know there are potentials  
8 for harm.

9 I'd like to deal with these  
10 advantages under two headings. First "Jobs and  
11 Economic Opportunities."

12 The construction of a pipeline  
13 will provide job opportunities in construction,  
14 maintenance and operations, in the associated develop-  
15 ment which will come with a pipeline. Pipeline  
16 can bring with it field -- gas field developments,  
17 increased oil and gas exploration. With this  
18 increased exploration activity, can come growth or  
19 will come growth in the service and supply industries.  
20 All of these will create more employment opportunities.

21 These opportunities, in our  
22 submission, could be a strong motivating factor keeping  
23 in the north many of the younger native people who are  
24 already trained toward wage employment, and many more  
25 who will come into the labor force in the future.  
26 Without the greatly increased employment opportunities  
27 in the north provided by pipeline development, the  
28 options faced by these young people are, in our submis-  
29 sion, not attractive.

30 Now, associated with all of



1 this increased economic activity will be the potential  
2 for growth in the private business sector in the north  
3 to which native persons or their organizations may  
4 respond. Construction of a pipeline will also  
5 bring with it improvement in all of the services  
6 and facilities which will be established or improved  
7 during construction. Increased wage employment will  
8 provide capital for equipment to better harvest the  
9 renewable resources of the north over a wider area.  
10 Increased wage employment can provide increased  
11 opportunities for local resource industries, small-  
12 scale manufacturing firms, arts and crafts activities.  
13 Commission Counsel, sir, in their submissions in  
14 Chapter 1 on "Northern Business" said that the treat-  
15 ing of these local industries made the point very  
16 clearly that their welfare and viability are strongly  
17 dependent on the growth of the regional income and  
18 employment and made the point that natives are very  
19 interested -- native groups are very interested in  
20 this type of enterprise.

21 It's my submission, sir, that  
22 the presence of pipeline and related oil and gas  
23 activity is going to provide exactly what these  
24 small businesses need to flourish.

25 The second heading, sir,  
26 which in my submission cannot be overlooked, is the  
27 question of the taxation and royalty revenues  
28 which will be produced if a pipeline goes ahead. There  
29 is no doubt that these activities will be providing  
30 very large revenues to governments through property





1     taxation, corporation income taxation, and royalties.  
2     This means that very large sums generated by activity  
3     in the north or associated with the north should be  
4     available to improve the quality of life in the  
5     north.

6                     I would like to attempt to  
7     quantify some of these sums.

8                     Various witnesses have  
9     estimated the pipeline property taxes in the Northwest  
10    Territories to be in the order of \$2 million per  
11    year.    Our own estimate, sir, is that the property  
12    taxes payable in the Northwest Territories in the first  
13    year of operation will be around \$2 million per year,  
14    will rise to close to \$7 million per year in the second  
15    year, and then because of the effects of depreciation  
16    on the value of what is being taxed, will decline  
17    to around \$3 million per year after 20 years.  They  
18    will be producing amounts in that area each year.

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1 In the Yukon we estimate that  
2 property taxes would be approximately half a million  
3 dollars in the third year of operation, would rise to  
4 \$850,000.00 in the fourth year, and would decline slowly  
5 to \$650,000.00 per year after twenty years.

6 These are local taxes. There  
7 are corporate income taxes. Of course, the only ones  
8 we can give you an estimate on are those for Arctic  
9 Gas which would amount to about \$230,000,000.00 per  
10 year during peak years for that portion of the line  
11 north of sixty. Personal income taxes and contractor  
12 and producer corporate income taxes are impossible  
13 to quantify but they will certainly be significant; so  
14 will Federal sales taxes imposed on materials used  
15 north of sixty. Royalties will be significant as well  
16 even though precise rates are not yet known.

17 But, sir, just to show the  
18 order to magnitude of the amounts we're talking about,  
19 if the wellhead price of gas was a dollar per thousand  
20 cubic feet and the royalty rate was twelve and a half  
21 percent, then a projected peak production from the  
22 Mackenzie Delta of 2.25 billion cubic feet per day, the  
23 annual royalties would total 102.6 million dollars.

24 Now, sir, the North will have  
25 a substantial claim to its proper share in these very  
26 large revenues. I realize that a lot of them will fall--  
27 go into-- be under present structures, will fall  
28 into the hands of the Federal Government. You've heard  
29 evidence in this Inquiry about the difficulties which  
30 northern people see their negotiations with Ottawa.



1 You've heard them say that Ottawa seems to regard the  
2 North as a cash drain and they seem to be doling out the  
3 money nickel by nickel.

4 How much more substantial will  
5 be the claim of the North to its proper share of these  
6 revenues when it is being produced here? These, sir,  
7 then are the positive benefits; jobs, economic  
8 opportunities, substantial taxation revenues. In my  
9 submission, they could be key elements in the fulfill-  
10 ment of the aspirations of northerners and must not  
11 escape your attention.

12 Finally, sir, and this is a  
13 point perhaps on which you cannot do much but which you  
14 might bear into account, the North has much to gain from  
15 a healthy Canadian economy and much to lose from a sick  
16 one. In your preliminary rulings you made reference  
17 to your willingness to consider impact of the  
18 national economy insofar as the effect of the economy  
19 of the North. If a pipeline is deemed by the government  
20 to be in the national interest, it will principally be  
21 for the reason that the National Energy Board and the  
22 government have been convinced that it is in Canada's  
23 interest to bring frontier gas supplies to southern  
24 markets in order to reduce the heavy dependence of  
25 Canada upon OPEC oil countries for a substantial  
26 portion of its energy supply and the grave consequences  
27 that that would bring to our balance of payments,  
28 consequences which today we see bringing our country,  
29 like Great Britain, to its knees.

30 If this should happen to Canada,



1 the North may be the first to suffer and the last to  
2 recover.

3 Sir, Miss Hutchinson said that  
4 three o'clock would be coffee hour and I've come to a  
5 good place to break.

6 THE COMMISSIONER: Good thinking,  
7 Mr. Genest.

8 (PROCEEDINGS ADJOURNED FOR A FEW MINUTES)  
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(PROCEEDINGS RESUMED PURSUANT TO ADJOURNMENT)

MR. SCOTT: Mr. Genest?

THE COMMISSIONER: Let's come to order again and Mr. Genest, you feel free to begin whenever the hubbub has died down.

MR. GENEST: That may be an opportunity for the hubbub to continue, sir.

I wanted to deal next, sir, with the question of the potential of pipeline development, the potential that that has for harm and how that harm can be avoided.

As I understand the situation, what is said in connection with the potential for harm of the pipeline is that pipeline development will bring changes to the native people so great that they will forever lose their ability to preserve and develop their separate identities as people.

It is said that the project will bring with it the in-migration of hordes of white people in search of work, that it will bring inflation, shortages and overloading of community facilities, leaving the northern residents to pick up the wreckage when construction is finished. It is said that what happened in Alaska with the construction of the Alyeska Pipeline is also bound to happen in the north.

Our submission, sir, is that with the controls and conditions we have proposed, most of these consequences will not happen and those that do can be kept down to acceptable levels. Some of these controls and conditions we see as the responsibility



1 of Arctic Gas; others will be the responsibility of  
2 representative governmental bodies -- local or  
3 on a higher level.

4                   Among the Arctic Gas policies  
5 and procedures designed to limit and control potential  
6 for negative impact, the most important have to do  
7 with in-migration and project personnel. We will  
8 require that all hiring of non-residents be done in  
9 southern locations, which will strongly discourage  
10 speculative job-seekers from coming north, which was  
11 the chief problem which occurred in Alaska. All the  
12 construction camps maintained by the company will be  
13 self-contained. Workers will not be allowed to enter  
14 local communities. All rest and recreation between  
15 job rotation for southern workers will be in southern  
16 locations, and personnel logistics will be handled  
17 in such a manner as to eliminate the need for stop-  
18 overs in northern settlements on the way to or from the  
19 jobsites. These measures will all limit the contact  
20 between southern construction workers and sensitive  
21 local communities. All of our construction plans  
22 are geared to eliminating the need to place demands  
23 on northern infrastructure except where such use will  
24 be mutually benefit -- will be mutually beneficial  
25 to Arctic Gas and the northerners. In most such  
26 cases we will be making improvements to the infra-  
27 structure and are ensuring that normal northern use  
takes priority over pipeline use.

                  The extensive series of  
recommendations put forward by Commission Counsel deal



1 with many areas of potential harmful effects, and  
2 suggest methods of avoidance and mitigation. We  
3 are submitting, as I told you earlier, detailed  
4 responses to these recommendations. As I told you  
5 earlier, in many instances we agree with the concerns  
6 and the proposed solutions. Sometimes we propose a  
7 better solution, but these responses and the suggestions  
8 put forward by Commission Counsel show in great detail  
9 the policies and the mitigative measures that taken  
10 together will, in our submission, minimize the harmful  
11 effects of pipeline activity in the north to a quite  
12 acceptable level.

13 That, sir, concludes my  
14 submission on the present state of the north and the  
15 effects of a pipeline development.

16 I want to turn now to the  
17 subject of native claims. When the pipeline  
18 guidelines were issued and when your preliminary  
19 rulings were made, the land claims issue related to  
20 a claim by the native peoples of the north to what is  
21 called an aboriginal title in some or all of the lands  
22 proposed to be traversed by the pipeline, it was  
23 essentially a legal claim enforceable by the Courts  
24 if valid. In my submission, it is in the context  
25 of that sort of legal claim enforceable by the laws  
26 in judicial processes of our country that the pipeline  
27 guidelines and your preliminary rulings were framed.

28 A perusal of your rulings --  
29 and I have a long quotation here but I don't think  
30 it's necessary for me to read it -- the provisions of





1 your rulings can be summarized as follows:

2 It is clear that on a reading  
3 of them what was being dealt with at the time was  
4 essentially a claim to title, to legal title to land  
5 arising out of use and occupancy both present and in  
6 the past. You were concerned with the present use  
7 and occupancy and you were concerned to hear evidence  
8 about it. You were concerned to hear evidence about  
9 the extent of lands claim over and above those covered  
10 by present use and occupancy; and lastly, you were  
11 concerned to hear what kind of right the native  
12 groups were asserting could be exercised over the lands  
13 they claimed.

14 You were concerned more  
15 specifically with the right relating to current use and  
16 occupation, In that respect you asked Arctic Gas  
17 to indicate the safeguards and measures they are prepared  
18 to adopt in support of their contention that a pipeline  
19 can be built without impairing the native people's  
20 current use and occupation of the land.

21 Now, throughout the course of  
22 these hearings much evidence was led by Arctic Gas  
23 relating to the -- this last issue of the impairment  
24 by pipeline activity of the native peoples current  
25 use and occupation. A host of mitigative measures  
26 proposed by Arctic Gas demonstrates, in my submission,  
27 that the interference which will occur with use and  
28 occupation is minimal, principally because the bulk of  
29 the activities will take place in the winter and that  
30 after a pipeline is built its effect on wildlife,



1 its effect on the land will also be minimal.

2 Arctic Gas has indicated its  
3 willingness to pay adequate compensation for any  
4 economic loss sustained by any interference that does  
5 occur with the current use and occupation of land by  
6 native people. So it's my submission that Arctic  
7 Gas has met that particular requirement of your  
8 ruling.

9 Now as to a legal claim of  
10 title to land, and the claim to the rights that  
11 the native should be entitled to assert in respect of  
12 the lands they claim, it is necessary in any discussion  
13 of this claim to refer to the question of the sovereignty  
14 of Canada. Under our Constitutional system, no indi-  
15 vidual, no government or subordinate political body in  
16 Canada has any property right over land that is not  
17 subject to compulsory taking in a national interest  
18 authorized by Act of Parliament. The provinces with  
19 all their powers are subject to that overriding right.

20 In our submission, sir, it  
21 is idle to speak of prejudice to a claim that seeks  
22 to cut down the right of the Parliament of Canada to  
23 effect the compulsory taking of a national interest.  
24 Insofar as any native claim does that, it can, of course,  
25 be said to be prejudiced; within my submission that  
26 does not get us anywhere.

27 As we apprehend it, the  
28 Dene and the Inuit do not concede that their land is  
29 subject to compulsory taking in the national interest  
30 authorized by Act of Parliament. They claim what they call



1 an alodial right to the land which we understand  
2 to be an absolute right of ownership, not subject to  
3 expropriation. If they are right in that contention,  
4 their rights will be enforced by the Courts and no grant  
5 of any right-of-way by the Minister of Northern Affairs ,  
6 no certificate of public convenience and necessity granted  
7 by the National Energy Board and approved by Cabinet,  
8 and indeed no Act of Parliament can have any effect.  
9 In that event, no question of prejudice arises because  
10 the Courts will enforce the rights of the natives by  
11 declaration or by injunction.

12                               Nevertheless, sir, in our  
13 submission it is not realistic to assume that a part of  
14 the national territory of Canada is not subject to the  
15 ultimate sovereignty of the Parliament of Canada acting  
16 in what it perceives to be the national interest.

17                               Therefore if aboriginal title  
18 in the legal sense is subject to the sovereignty of Canada,  
19 the highest right that the owners of that title would  
20 have would be the right to compensation following a  
21 taking in the national interest.

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This right, sir, would not be affected by the timing of construction. That's the issue of legal prejudice but that's of course, not the end of the matter. The evidence presented during the course of the hearings indicate that what was a claim to aboriginal title has been transformed into something far wider than a mere claim to title to land.

You invited in your rulings the native organizations to more precisely delineate the extent of the native claim, but, as we see it, that invitation has not been fully accepted. As to the nature of these claims, I'd like to consider what the Dene have stated, what COPE - I. T. C. has stated in its submission and how Commission Counsel sees it. The Dene position as stated in their letter of November 4, 1976 and that is that, and I quote:

"No right-of-way be granted until such time as a land settlement has been made and implemented which will ensure the self-determination and survival of the Dene as a people".

They go on to say that,

"Such a condition can be met only through a land settlement embodying the specific principles as dictated by the Dene in their proposed agreement in principle to the government".

End of quote. The agreement in principle which was submitted before the Commission calls in brief for the right of the Dene to retain ownership, and I quote"

"...of so much of their traditional land and under such terms as to ensure their independence





1 and self-reliance traditionally, economically and  
2 socially and the maintenance of whatever other rights  
3 they have, whether specified in this agreement or not".

4 The agreement in principle  
5 further provides for the right of the Dene to practice  
6 and preserve their languages, traditions, customs and  
7 values, develop their own institutions, and enjoy their  
8 rights as a people in the framework of their own  
9 institutions and finally calls for a Dene government  
10 with jurisdiction over a geographical area, and here I  
11 quote:

12 "And over subject matters now within the juris-  
13 diction of either the Government of Canada or  
14 the Government of the Northwest Territories".

15 Now, the Metis--we've just  
16 received today a note that they disassociate themselves  
17 from that position and apparently we've received a  
18 letter which I think is before you outlining the  
19 position they're going to take.

20 THE COMMISSIONER: That is the  
21 letter that the Metis Association sent to me and I  
22 directed that it be circulated to all participants.  
23 Are we talking about the same letter?

24 MR. GENEST: Yes. Well, I got  
25 two, sir. I got a letter they sent to you and I got  
26 a letter addressed to all participants dated today  
27 containing an outline of the submissions they're going  
28 to make which contain the reasons why a settlement  
29 should be made between the Metis people and the Federal  
30 Government before a pipeline is constructed. The reasons



1 why they believe that a minimal number of years are  
2 required. The last item I think is cribbed from Mr.  
3 Gibbs. It says,

4 "Other and additional topics which our association  
5 may deem appropriate".

6 THE COMMISSIONER: Such further  
7 and other relief.

8 MR. GENEST: That the court  
9 may deem fit. So, we'll hear from them later on, sir.  
10 Let me turn to the COPE - I. T. C. position. It too is  
11 not specific on the nature and extent of the claim but  
12 it does spell out some objectives. They state, and I  
13 quote:

14 "The Inuvialuit --

15 I hope I pronounced that properly, sir,

16 "--understand a land claims settlement to mean the  
17 return of effective power and control over their  
18 traditional lands".

19 A little later on at page  
20 six of their introduction they say,

21 "That to achieve their goal, five minimum  
22 requirements must be met.

- 23 1. Maintenance of the traditional land base and  
24 the viability of the traditional economy.
- 25 2. Maintenance of a political majority at the  
26 regional level.
- 27 3. Control over major economic development planning  
28 and decisions.
- 29 4. Maintenance of the viability of the small,  
30 essentially native communities.



1       5. Adequate financial support for native self-  
2       government and enterprise, including control  
3       and training and education for those purposes".

4                       Commission Counsel sees the  
5       claim as an assertion and I'm cribbing his words here,  
6       "--to the fundamental claim to self-determination,  
7       the right to control their own political, cultural,  
8       economic destiny within the Canadian Confederation,  
9       to ensure their survival as a distinct people  
10      within Canada. Negotiation of land claims of the  
11      native people is no more, no less than the  
12      negotiations of a social contract between the  
13      native people of the North and Canada for their  
14      full participation in Confederation".

15                   Now, sir, as I've already said  
16      insofar as these claims extend to the right of absolute  
17      control or veto power over any development occurring  
18      on native lands, it seems to us that they abrogate  
19      the right of the Parliament of Canada to exercise  
20      sovereignty in the national interest.

21                   We submit that the real question  
22      facing the Commission is not whether a particular item  
23      of this broad, social, political, cultural claim is  
24      prejudiced. It is always possible to say that a claim  
25      is prejudiced by advancing it. The real question facing  
26      the Commission is whether or not delaying a pipeline  
27      will enhance or retard the achievement or the goals of  
28      the natives.

29                   Now, it's our submission--

30                   THE COMMISSIONER: I think that's





1 a fair way of putting it.

2 MR. GENEST: That's the way we  
3 see it sir. It does not lead us very far to say, well,  
4 they claim this and if we build a pipeline, they can't  
5 do it. Of course, if they claim that a particular  
6 piece of land should be set aside for their exclusive  
7 use and occupation,<sup>a</sup> pipeline goes through that piece  
8 of land, and that's prejudiced.

9 My submission is you've got  
10 to look at it in a much broader context. They have  
11 goals. They have legitimate goals and are they going  
12 to be retarded or made impossible by a pipeline? On  
13 the contrary, are they going to be enhanced by the  
14 pipeline?

15 THE COMMISSIONER: I think  
16 you're putting the broad question that faces the  
17 Inquiry and I venture to say, with respect to you Mr.  
18 Genest, that no one is looking to me to discuss the  
19 question whether they're entitled to assert an alodial  
20 title. I must say, I have never heard that expression  
21 before.

22 MR. GENEST: I've learned it  
23 in the Inquiry, sir. It takes us back to King  
24 William .

25 THE COMMISSIONER: I see.

26 MR. GENEST: But that's what  
27 I--and that's the way I'd like to approach the question.  
28 I've already made reference to the fact that while  
29 Commission Counsel's submission and COPE-I. T. C. and  
30 the Indian Brotherhood submission urge delay, they are



1        silent first of all as to the length of delay. Mr.  
2        Scott seems to be urging that if a pipeline is to be  
3        built without prejudice to native claims, it is not  
4        just the--what is involved is not just the signing  
5        of a piece of paper, it is the putting in the place of  
6        the institutions and organizations that will properly  
7        implement it and we see a delay urged of fifteen to  
8        twenty-five years.

9                                I believe that COPE, I. T. C.,  
10       and the Indian Brotherhood have said that well, it may  
11       take a long time. They haven't specified. Well, sir,  
12       all of these submissions are silent as to the cost of  
13       that delay. -I've already outlined the socio-economic  
14       costs which in my submission, could be involved in  
15       indefinite postponement of the pipeline.

16                              The question that you must  
17       ask yourself, in my submission, sir, is that cost going  
18       to enhance or retard the achievement of native goals?  
19       What are their chances in the conditions that I have  
20       described, the scenario that I've put forward to you,  
21       which you may or may not accept, but which I submit is  
22       an entirely possible one; what are their chances of  
23       improving their political and economic status; of  
24       instituting the cultural and improving their cultural  
25       and educational programs, which require funding; of  
26       improving health care services and recreational facilities;  
27       of obtaining what COPE lists as a minimum requirement  
28       which I've quoted before,

29                              "adequate financial support for native self-  
30       government and enterprise including control of



training and education".

We submit they might well be reduced and reduced very harmfully. The efforts to bring about the changes sought by the natives could well take place in an atmosphere of high unemployment, high dependence on welfare and a very stagnant economy.

On the other hand, sir, we say there's no reason why concurrently with pipeline construction and development, fruitful negotiations should not go forward in the much more benign atmosphere of an activity which produces large amounts of revenue of a settlement which can achieve the native goals. They seek better political status. They fear in-migration will prejudice that.

Well, sir, in my submission, the in-migration that you will see if the controls suggested by us and I think supported in full by Commission Counsel as to strict controls on in-migration will not produce a shift in balance in the political power. I don't think it's my function, and yours to say whether that's a good claim or a bad claim, but it's a claim that they advance and that they see is legitimate. I disagree with the views taken by Commission staff that that particular item of claim is threatened because there will be an overwhelming number of white people.

Sir, you've heard evidence during the Inquiry of the efforts made by parents in one of the delta communities, I believe it was Inuvik, to effect changes to the school curriculum. I think



1 it's unrealistic to expect that the addition of some  
2 white pipeline workers to the population there would  
3 bring about a change in what those people have fought  
4 so hard to achieve.  
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1                   The development of a resource  
2   economy as to the -- as to which Professor Watkins  
3   testified could well be seen to take place concurrently  
4   with pipeline development in a better atmosphere.  
5   The desires of the natives to have areas of land set  
6   aside for their exclusive control are not substantially  
7   interfered with with a pipeline development. So in  
8   my submission, sir, there is a case to be made for the  
9   proposition that an indefinite delay of the pipeline  
10   will delay and retard and injure rather than advance  
11   the achievement of the goals of the native peoples  
12   as they've been expressed to you in this Inquiry.

13                   I want to address one last  
14   topic in this question, because it has been said, it  
15   has been advanced in the submissions of Commission  
16   counsel that a decision to proceed with the pipeline  
17   before settlement will inflict upon the collective  
18   native communities a psychological injury so severe  
19   that they are unlikely to recover from it.

20                   Now, with the greatest respect,  
21   sir, we say that that is nonsense. Commission Counsel  
22   have aptly referred to the remarkable adaptability of  
23   the native peoples. The years since World War II,  
24   especially the last 15, has seen them adapt to the  
25   most remarkable impact, an impact which we say has  
26   been much greater and more severe than any pipeline  
27   impact will be. This period has seen the move from  
28   residents on the land and scattered camps to the situa-  
29   tion which now exists where virtually everybody in the  
30   area has gathered into settlements. This period has



1 seen the advent of television, snowmobiles, and all  
2 the appurtenances and allurements of southern civiliza-  
3 tion. The natives have adapted to it, and <sup>it's</sup> during that  
4 period precisely that period of tremendous change, you  
5 have seen the resurgence of their pride in their  
6 culture and heritage and their determination to maintain  
7 it.

8                   The Commission itself has  
9 witnessed in community after community that strong  
10 sense of pride and loyalty, the attachment of the native  
11 people to their traditions and way of life. Through  
12 the medium of this Inquiry they have done an unparalleled  
13 job of gaining the support of large numbers of Canadians  
14 in the south to their cause. You have seen this time and  
15 time again in the southern cities which you visited.  
16 Their claim to more political self-determination,  
17 to more control over their lives, to a better place in  
18 society, has received wide public support in the south.

19                   Now to say that this strong  
20 sense of pride, this strong determination that they have  
21 exhibited to survive as a people that you saw in the  
22 communities would suddenly go away if it was decided  
23 to build a pipeline while their claims were still  
24 negotiated is, in my respectful submission, not support-  
25 able.

26                   That concludes, sir, my submissions  
27 in connection with the issue of native claims.

28                   I'd like now to deal with three  
29 subjects which are raised by Commission Counsel in the  
30 socio-economic fields which cause some concern to Arctic



Gas. They will be dealt with again in the written material that we will be handing in in detailed response, but I would like to make some reference to them here.

There are three questions that give us some concern. There are some submissions by Commission Counsel as to the responsibility for mitigating impact cost, if I could use that as a catch-all title. There are questions as to the funding of impact costs, and there are certain submissions as to northern business which I would like to address.

Let me deal first with the question of the responsibility for mitigating impact costs. Sir, we find Commission Counsel's submissions to be quite ambivalent throughout with respect to the assignment of those responsibilities, and that is the responsibility for mitigating the impact of pipeline development in the north.

Counsel's submissions, in our view, contain mutually inconsistent passages when it discusses the issue of impact responsibility. Early sections of the submission is eloquent, counsel is eloquent in those sections in his discussion of the evils of bureaucracy. On page 7 of "Basic Issues"

Mr. Scott or his staff heary the frightening spectre of a massive increase of bureaucracy in a region that is already suffering the consequences of a serious bureaucratic overload. In the same paragraph, counsel indicates that he and the staff -- and I quote:

"... does not favor an extension of bureaucratic





1 power beyond levels absolutely necessary to  
2 deal effectively with the project."

3 They go on to state:

4 "It is strongly recommended that the existing  
5 government machinery in the Territories be  
6 carefully examined to determine how much of  
7 it is redundant in terms of present-day needs."

8 Now this anti-bureaucratic  
9 posture is also addressed to my clients, Arctic Gas.  
10 The staff's submission indicates that our testimony  
11 which dealt with the importance of limiting in-migration  
12 to the Territories must be viewed within the context  
13 of bureaucratic expansion.

14 Mr. Scott, at least as I read  
15 him, suggests that limiting in-migration will require  
16 an extension of the existing bureaucracy, and he indi-  
17 cates that this expansion is part of the problem rather  
18 than part of the solution in the Northwest Territories.

19 Specifically, Mr. Scott points  
20 out the antipathy which native peoples of the north  
21 dealing with established government institutions in  
22 the bureaucratic network which supports them. In the  
23 place of an existing bureaucracy, Commission staff  
24 appear to be arguing for a devolution of power to  
25 native communities and peoples.

26 Now, sir, we find that this  
27 argument is at odds with the continual thrust of the  
28 later sections of the counsel's submissions by which  
29 numerous proposals are developed which will institution-  
30 alize a vast new bureaucracy. It appears that their



1 reason for the establishment of this new bureaucracy  
2 which I note, sir, will exist parallel to the established  
3 agencies of the north, is that Commission staff do  
4 not appear to have faith that the existing governmental  
5 agencies will effectively and sensitively respond to the  
6 needs of the native peoples.

7 What it seems to boil down to  
8 is this. Rather than adapt and improve existing government  
9 agencies, a competing government should be established.  
10 It is our respectful submission, sir, that such a proposal  
11 would be enormously costly and unwieldy, and inasmuch as  
12 it would be hard to delineate its responsibilities, the  
13 responsibilities of that unnamed authority that Mr. Scott  
14 suggests be set up in the socio-economic area from those  
15 of the existing government. We could have a situation  
16 which would be confused and competitive and would not  
17 lead to efficient administration. It seems to us to be  
18 wrong in principle to create a vast new bureaucracy to  
19 administer socio-economic policies not related to pipe-  
20 line activities which are normally the responsibility  
21 of government and in respect of which there are already  
22 in place government agencies and departments. If there  
23 is something wrong about the way they do things, it  
24 seems to us that the answer is to correct what is wrong  
25 and alter the existing structure to accommodate the  
26 new conditions rather than to create a brand new  
27 parallel and competing authority.

28 Another point I'd like to  
29 make, sir, that it would seem to Arctic Gas at least  
30 to be a good principle to establish when dealing with



1 the administration of the socio-economic policies that  
2 the responsibility of mitigation of impacts directly  
3 related to pipeline activity and in which the interests  
4 of Arctic Gas and the interests of the people in  
5 government coincide. The primary responsibility for  
6 an amelioration or mitigative measures should rest with  
7 Arctic Gas. This is self-policing in a sense that the  
8 self-interest of Arctic Gas will provide a strong  
9 motivating factor for the successful administration of  
10 the policy.

11 There are two examples that  
12 come to mind.

13 (1) is the manpower delivery agency that Mr. Scott  
14 referred to this morning. We strongly support that  
15 concept. We strongly disagree with the method by which  
16 Mr. Scott goes about it, and we'll elaborate this in  
17 our detailed submissions. If Mr. Scott's proposals  
18 are followed, you will have a bureaucracy of some  
19 80 to 90 people designed to deliver about 200 jobs.

20 Another case is the case of  
21 impact information centre, a concept we strongly  
22 support.

23 THE COMMISSIONER: Excuse me.  
24 Did I hear you right? 80 or 90 people?

25 MR. GENEST: I've got an exact  
26 count somewhere.

27 THE COMMISSIONER: I thought --

28 MR. SCOTT: The fact that he says there  
29 are only 200 jobs rather concerns me at this stage in the Inquiry.

30 MR. GENEST: For direct



1 pipeline jobs apart from construction?

2 MR. SCOTT: I thought this  
3 project was going to induce employment. We're dealing  
4 with only 200 jobs, it may be that we're into an  
5 entirely different kind of operation.

6 THE COMMISSIONER: Well, excuse  
me, before you carry on, you both are talking clearly  
8 about jobs on pipeline operation and not construction --

9 MR. GENEST: That's right.

10 THE COMMISSIONER: -- you were  
11 scoring off Mr. Scott in a way that he objected to, and  
12 I take it that this manpower delivery system  
13 is supposed to deliver manpower to construction --

14 MR. GENEST: That's right, and  
15 we support the concept, we support the philosophy  
16 expressed by Mr. Scott. What we -- where we're at  
17 odds with him is in the mechanisms, in the structure,  
18 the bureaucratic structure of that organization. I didn't  
19 want to score off Mr. -- perhaps that was a cheap score,  
20 and I apologize for that.

21 The point I want to make is  
22 that if you take Mr. Scott's proposal for the staffing  
23 and the functioning of that service involves the  
24 setting up of what we consider to be an entirely  
25 unnecessary bureaucratic superstructure.

26 THE COMMISSIONER: And your  
27 point, I take it, will be that that delivery system  
28 can be established within the present Federal and  
29 Territorial Government.





1 MR. GENEST: Yes, sir. Yes,  
2 sir, the machinery exists there. Arctic Gas is very  
3 interested in participating and seeing that function  
4 well. And that's right, there are existing agencies  
5 set up to handle that kind of problem and it seems to  
6 us to be--you see, we don't understand why you would  
7 just ignore these existing structures and try and set  
8 up something entirely brand new that doesn't make any  
9 use of their existence and of their experience, unless  
10 it's concluded that they're just a total disaster and  
11 that I make no submission.

12 THE COMMISSIONER: Representatives  
13 of all of those existing agencies appeared on a panel  
14 on the last week of the Inquiry. I can't remember  
15 whether their opinions were sought on this very issue  
16 that Mr. Scott and you are divided on now but carry on.

17 MR. GENEST: Thank you, sir.  
18 Well, the other example I had in mind was the impact  
19 information center because that is a case where the  
20 interest of the pipeline company to see that the centres  
21 work and that the programs are effective is very much  
22 alive. We have to operate in that milieu. We have  
23 to get along. It seems to us, sir, that in such a  
24 case heavy government involvement in the process is  
25 unnecessary.

26 I'm not saying that there should  
27 not be monitoring of our activities and our performance  
28 in these responsibilities. But the point I want to make  
29 is that a company bureaucracy as opposed to a government  
30 bureaucracy has the distinct advantage of ending when the



pipeline construction phase ends. It might be said facetiously that that cannot be said for any government bureaucracy known to man.

The next item I wanted to deal with was proposals as to the funding of impact costs. Throughout Mr. Scott's submission there are numerous statements that Arctic Gas should pay for all the what he calls the extra normal costs that occur in the pipeline impact region. In addition, that Arctic Gas should pay for all the costs that can be clearly assigned to it, that appear in the communities lying outside of the primary impact region.

Now, in my submission, these recommendations raise fundamental questions as to the responsibilities of a development company and the responsibilities of government. I would like to address these. You've heard much evidence, sir, about the likely nature and extent of the socio-economic impacts which may occur in the North if the pipeline is constructed. We have submitted that due to the careful planning that has gone into the project and to the policies which you propose should be adopted, these impacts will be much more positive than negative.

We have undertaken to construct a project in a proper and controlled manner and to bear all those costs which are a direct result of our proposed activities. Regardless of how well a project of this size is planned disruptions in society and in the economy on which it is built can occur. These disruptions can only indirectly be related in a causal



1 way to the project itself since they are as much a  
2 function of the nature of the economy itself and the  
3 social and political circumstances of people.

4 In Arctic Gas' case, if some  
5 external costs are incurred the responsibility equation  
6 for who should bear these costs to be fair should also  
7 include the gas producers and all others who benefit  
8 from development including governments. The measures  
9 suggested in Commission Counsel's submissions to cope  
10 with many of the negative impacts that he predicts  
11 will occur clearly involve redistribution of income  
12 and the administration of programs that are the normal  
13 responsibility of government.

14 For example, his proposals  
15 include a proposal that the companies should compensate  
16 local business firms against inflation, that the  
17 companies should fund an alcohol and drug program,  
18 provide a wage increase compensation fund, provide an  
19 impact fund for extraordinary expenditures, et cetera.  
20 It seems to me, sir, that it is difficult to see how a  
21 private corporation can or should take on such a  
22 responsibility.

23 Arctic Gas, if its project is  
24 approved, will be a highly regulated company which will  
25 pay substantial taxation to various levels of govern-  
26 ment as compensation for services it receives and as  
27 a contribution toward the social well-being of the  
28 society which it is a part. I have referred to the  
29 size and amounts of these revenues in the earlier  
30 part of my submission.





Now, adverse impacts which may occur in the North are, in my submission, not extra normal in the sense that they involve new or different social phenomena. What is new and different is the size of change and how quickly it will happen. The impacts we're concerned with would probably most consist of short falls in the same services which are presently being supplied to the people of the North, especially those in the Mackenzie Valley.

There are administrative structures and programs already in place to meet these needs. All that is missing is the financial flexibility necessary to meet the demands of abnormal size and timing. Once the pipeline is installed and in operation, as I said before, the industry will be providing substantial tax revenues, royalty revenues. During the construction phase, revenues will flow to the Territorial Government from fuel taxes and to the Federal Government from the personal income tax of workers, of corporate income tax of contractors, Federal sales taxes from material suppliers.

Now, since the Federal Government is ultimately responsible for all government function in the Northwest Territories, all of these revenues should be applicable to the public costs of development in the Territories. It would seem to us reasonable that the Territorial Government should share to some greater extent in project-related revenues than would be the case under existing tax legislation.

These revenues, it would seem



to us reasonable that the Territorial Government should in turn share with the impacted municipalities and communities. It has been suggested in Commission Counsel's submissions on terms and conditions that extra normal impacts be financed through an impact fund to be established by the successful applicant.

It seems to us, sir, that such a fund would only be useful as a tool for governments to use in meeting the peculiar demands which may be placed on them due to the abnormal scope and timing of any external costs. It would be most useful in bridging the time gap between when the cost might be incurred and when normal taxation procedures could provide revenue to help defray the costs.

If such a tool is deemed necessary, it's our submission that it should be established and funded by government as it was in Alaska, since more than adequate revenues will flow back to the government from industry through taxation. Next, sir, I have some brief submissions on northern business.

Again here we see ambivalence in the submission made by Commission Counsel. And that ambivalence is about the proper role which local businesses of the North should play vis-a-vis the pipeline. As a matter of policy, page two of Commission Counsel's submission entitled "Northern Business" states and I quote:

"Advantage should be taken of the potential of northern regional markets for future expansion.



It is therefore proposed that territorial resident domicile firms should be induced to concentrate much more of their activity in areas related to the long-term growths of the Territories and leave a greater portion of the more ephemeral even if temporarily more lucrative, boom induced activity largely to firms not based in the region".

Despite this statement of policy, the report makes recommendations which are inconsistent with this position. For example, on page eighteen of the same section the document recommends, or Commission Counsel recommends that, and I quote:

"The company give preference to native controlled companies in the tendering of contracts whenever their bids are reasonably close to low bids and this might be within ten to fifteen percent of a low bid".

They also recommend that local carriers be given first preference over outside carriers in serving the pipeline's transportation needs and that local catering firms be given assistance to bid on pipeline contracts. We see an inconsistency there between these recommendations, which have merit in themselves, and the philosophy that's expressed at the beginning of the document.

That's carried a step further because such preferential local procurement policies will also have the inevitable effect of inducing inflationary pressures at the local level during the construction phase. Now, although such inflationary



1 pressures would flow naturally out of the recommendations  
2 in the report, the report goes on to suggest that  
3 Arctic Gas should be required to compensate any  
4 businesses or individuals in the entire Northwest  
5 Territories affected by inflation caused by pipeline  
6 construction and related activities.

7 We find that, sir, at pages  
8 nine and nineteen and twenty on the section of "Northern  
9 Business". Now, what we find ironic about this is that  
10 a universal regulation requiring Arctic Gas to make  
11 compensation for inflation would tend to establish  
12 a self-reinforcing inflationary spiral. Employees  
13 could demand increases. Employers would not think twice  
14 about granting them since they would be assured of  
15 recovering their increased costs. The whole economy  
16 under this scenario would shift into sort of a cost  
17 plus mode.

18 We don't think these  
19 recommendations are appropriate. Now, part of the  
20 inconsistencies of this document may reflect a dilemma  
21 which has faced the pipeline applicants since the  
22 northern pipeline guidelines were issued in 1972. The  
23 guidelines themselves require the successful applicant  
24 to encourage and maximize local business participation  
25 without extending the sector beyond its capabilities,  
26 or causing local service shortfalls.

27  
28  
29  
30





1                   That's a dilemma right there,  
2 and in our submission it has really never been adequately  
3 addressed by government, and these two aspects of  
4 regulation which could be reviewed as mutually exclusive  
5 have been reinforced first by the Pipeline Assessment  
6 Group Report and now by Commission Counsel's submission.

7                   Now, as we have shown in our  
8 application and in our testimony before this Inquiry,  
9 we sympathize with both the objectives, but we can't  
10 solve the problem singlehandedly. What we do suggest,  
11 sir, is the formation of an advisory group of inter-  
12 ested parties consisting of these people from the  
13 successful applicant, government, businessmen, and  
14 we're happy to see that Commission Counsel's report  
15 supports this.

16                   We think there is room for  
17 carefully planned participation of the local business  
18 community and perhaps even some diversification in  
19 the servicing of the oil and gas industry. We recog-  
20 nize the sensitivity of this area and we welcome the  
21 sort of -- some sort of supervision or regulation by  
22 the government.

23                   Now, detailed recommendations  
24 in this area should also take cognizance of Arctic  
25 Gas' need to do its job in an efficient and cost  
26 effective manner, and that any business arrangements  
27 entered into with northern firms should reward good  
28 performance and not inefficiency. This approach, we  
29 submit, is in everybody's interest.

30                   There are some specific



1 recommendations in the northern business section made  
2 by Commission Counsel which we can influence directly  
3 and which we feel we can accept, although the mechanics  
4 suggested in some instances are not workable, and perhaps  
5 it would be useful if I list the recommendations that  
6 we find broadly acceptable, although we have some  
7 reservations about the mechanics.

8 There are suggestions as to  
9 preference for local transport carriers, preference to  
10 local contractors on secondary construction, providing,  
11 as we say, they are cost-effective and efficient.  
12 Advanced notification of tenders in the north, standard  
13 procedures for tender notices in the north, a company  
1 operated bid depository, a company operated procurement  
information system, registration of all northern  
contractors to ensure notification of opportunities,  
creation of a Northern Business Advisory body, the giving of  
reasonable prior notice to <sup>northern</sup> firms on contract opportuni-  
ties, ensuring that community needs have priority  
over pipeline needs when it comes to any local business  
servicing board. These broadly we accept the objective  
and are prepared to co-operate with them. In our detailed  
submissions we will be filling out these portions.

14 Finally, sir, I should close  
15 with saying that we cannot accept as reasonable,  
16 recommendations which call for making the company  
17 responsible for all wage and price increases in the  
18 business sector, all labor market shortfalls, financing  
19 and managing northern businesses, or giving preferences  
20 which will encourage inefficiency or restrict competition.



1 In addition to the dangers  
2 and inconsistencies we have referred to, many of these  
3 recommendations in our submission are inequitable and  
4 some are impractical since they couldn't be made to  
5 work, and again we will try and demonstrate that in  
6 our detailed responses.

7 Sir, that ends my submissions  
8 in the socio-economic area, and I would like now to  
9 move onto a discussion of the **single regulating**  
10 authority, which we consider of very high importance.

11 THE COMMISSIONER: Before you  
12 do that, Mr. Genest, let me just ask you about some-  
13 thing that occurred to me while you were discussing  
14 the impact of the pipeline project in terms of providing  
15 employment for a large body of northerners, and don't  
16 feel obliged to respond now, if you wish to leave  
17 it until the morning, even should that mean interrupting  
18 Mr. Marshall, or if you wish to leave it for your  
19 written reply, feel free to do so.

20 In the material that Arctic  
21 Gas filed in support of its application for a right-of-  
22 way, it made the case that you've made this afternoon,  
23 that is that there is a very high rate of unemployment  
24 here in the Northwest Territories, and Mr. Bergasse and  
25 Mr. Witty, both officials of the Territorial Government,  
26 appeared as witnesses and indicated to us that essen-  
27 tially if you are going to use that sort of terminology  
28 you are talking about 5,000 native persons who constitute  
29 that pool of unemployed, assuming that the proposition  
30 is one which broadly speaking can be made.





1 Now, when Arctic Gas filed  
2 its material in support of the grant of right-of-way  
3 it argued, as you have done this afternoon, that the  
4 pipeline would provide jobs for those people, and cer-  
5 tainly the evidence of Mr. Williams and I think of Mr.  
6 Wirth, who is the vice-president of Arctic Gas, indi-  
7 cated that something like 60% of the pipeline  
8 jobs would not require skills beyond the abilities of  
9 northerners, once trained, to fill and oddly enough  
10 it comes out to just about 5,000 jobs below that skill  
11 level when you consider that the jobs on the construc-  
12 tion project and on the gas plants will come to something  
13 like six to 8,000 people.

14 Now, Mr. Hobart was the  
15 principal witness of Arctic Gas in delineating the  
16 condition of the north today, and he is a most distin-  
17 guished sociologist and I paid close attention to his  
18 evidence. You called Mr. Boorkman and his colleagues  
19 and he described what has occurred in Alaska, and I  
20 think he gave us the fullest picture of the broad  
21 impact of pipeline construction in Alaska, and no  
22 one has really challenged Mr. Boorkman's analysis.

23 Then Mr. Trusty, who is an  
24 economist and gave evidence for Arctic Gas, said  
25 "Now here is the way we're going to mitigate the kind  
26 of impact that occurred in Alaska."

27 I recall that he told us that  
28 it would be a mistake -- and I hope I'm doing justice  
29 to his evidence -- but he told us it would be a  
30 mistake for native persons to become employed on



1 pipeline construction. He put that proposition  
2 generally speaking because, he said, "once the pipeline  
3 is built if there is no looping and no oil pipeline  
4 subsequently, then they will have developed skills for  
5 jobs that don't exist any longer."

6 That, of course, has been a  
7 point raised again and again by witnesses in the  
8 communities and here at the formal hearings. There's  
9 nothing novel about the point.

10 Mr. Trusty said, "Well, I  
11 think the emphasis should be on native people being  
12 trained as carpenters to build wharves because wharves  
13 will need to be constructed, and then the skills that  
14 they achieve as carpenters building wharves to offload  
15 pipeline equipment coming down on the barges can be  
16 used to build houses after that."

17 He gave us a number of  
18 examples and I think so far as it went everybody felt  
19 that that was a sound approach; but you've taxed Mr.  
20 Scott with some inconsistencies which, the way you  
21 put them, are quite apparent. But I've been troubled  
22 ever since by what seems to me to be an inconsistency  
23 between the case for Arctic Gas as you've put it this  
24 afternoon, and the evidence of Mr. Trusty, and I only  
25 mention that now so that if you wish you can review  
26 his evidence and let me know if I misunderstood him  
27 or if there is a blending of both points of view that  
28 --

29 MR. GENEST: I suspect there  
30 is, sir. But I would like to take advantage of your



1 offer not to give you an answer off the top of  
2 my head. I recognize that as an important question  
3 and I'd like to give it a little consideration.

4 THE COMMISSIONER: By all  
5 means. Well, carry on then. You were about to discuss  
6 the authority -- proposal to establish an authority.

7 MR. GENEST: That's right.

8 We have already, sir, in our  
9 outline of argument, I don't know if you've read it,  
10 there's been a lot of stuff coming in the last couple  
11 of weeks, we have suggested, we have set up our  
12 submissions in connection with the regulation of the  
13 project by government agency. It's, of course, a subject  
14 of vital concern to Arctic Gas, since the success and  
15 feasibility of its project could well hinge on the  
16 way it is regulated.

17 It's our submission, and I  
18 think there is universal agreement on the principle,  
19 that it is necessary that a single agency should be  
20 charged by the government with the responsibility for  
21 ensuring that there is adherence to the necessary  
22 standards, codes, guidelines, legislation, right-of-  
23 way stipulations, etc., with respect to the design,  
24 construction and environmental stipulations and those  
25 sociological stipulations which are directly associated  
26 with pipeline construction.



1 We believe that it's  
2 essential that a single agency should carry out these  
3 functions in order that there be a co-ordinated manage-  
4 able approach taken to the enforcement of these  
5 stipulations. Without such an approach it could  
6 become impossible for any construction company to do  
7 the job.

8 It is essential that any  
9 plan for monitoring and controlling the pipeline  
10 activity should be workable, capable of avoiding  
11 unnecessary and costly delays, which are often caused  
12 by a confusion of multiple approvals having to be  
13 obtained from different authorities. A situation  
14 of cross-jurisdiction and authorities failing to  
15 agree, we've seen its results in Alaska. In our  
16 view it could well jeopardize the financing of the  
17 project.

18 So we think that it's very  
19 important that there should be north of 60 a single  
20 agency. But because there are important socio-economic  
21 circumstances that have to be regarded in the north  
22 that have not a direct bearing upon the immediate  
23 activities of the company, we are of the view that  
24 the agency should provide for input from and co-operation  
25 with the existing government structures in the  
26 Territories, the native people and other northerners.

27 Input from native people and  
28 northerners, we believe, could be by means of a Northern  
29 Advisory Board or a Mackenzie Valley Pipeline Advisory  
30 Board, or call it what you will, which would consist





1 of representatives from each of these interested parties'.  
2 As we point out, sir, in the outline of our submission,  
3 the interest of the agency in being responsive to  
4 local institutions and residents must be balanced against  
5 a need by the pipeline and by the viability of the  
6 project for a swift and speedy response as problems  
7 arise in construction. This was Dr. Thompson's view  
8 in evidence, and we agree.

9 We also agree with him that  
10 in order that this balance can be achieved, communities,  
11 government officials or individuals will have to  
12 accept the agency as their representative in the planning  
13 decisions and as to the specific impacts of the project  
14 on matters assigned to its enforcement.

15 Now, we strongly submit, sir,  
16 that in your report you should not attempt to lay down  
17 a precise organization chart for this agency, nor to  
18 spell out in the details suggested by Mr. Scott its  
19 precise functions and the precise manner in which it  
20 should go about discharging them. The reasons I say  
21 this are the same reasons, basically that I have urged in support  
22 of the contention that you shouldn't try and write the  
23 manual in setting out terms and conditions.

24 A lot of these matters have to  
25 be sorted out on a pragmatic basis by discussion within  
26 the agency between the agency and other interested groups  
27 including the company. A specific recommendation by you  
28 which at this time could seem acceptable to everybody  
29 would sort of be enshrined in stone and on further  
30 study could well be found to be unworkable, and I



1 suggest that this is something you should avoid.  
2 Again, I urge that in making the recommendations that  
3 you see fit to make in connection with the agency and  
4 its mechanics of enforcement, you should limit yourself  
5 to setting out the general principles which would  
6 guide the functions, the organization, and the  
7 operations of the agency, leaving the expert staff of  
8 the agency to work out its detailed organization and  
9 the operational procedures in consultation with the  
10 parties. Again you have a situation here where in  
11 an adversary atmosphere various parties are making  
12 submissions to you, and you are going to have to try  
13 and sort out from these what's good and what's bad.  
14 There may be good in everybody's; there may be bad in  
15 everybody's. It's not an atmosphere, sir, which is  
16 conducive in my respectful submission to the setting  
17 out of a proper organization of an agency that is going  
18 to be so important as this agency.

19 Now, in the outline of my  
20 submission I've set out some of the principles which  
21 we suggest should govern your recommendations. I'm not  
22 going to repeat them here.

23 There are a few extra  
24 comments I would make as to the functions of the agency.  
25 One principle that I urge on you that is perhaps not  
26 clearly laid out in the outline of our submission is  
27 that the responsibility of the agency should be limited  
28 to those areas associated with environmental  
29 protection, design and construction of the project  
30 and with a responsibility for only those sociological



1 matters which are directly associated with construction  
2 progress in the field or jobsite. The broader socio-  
3 logical monitoring and controls regarding the hiring of  
4 natives and other northerners, manpower delivery  
5 systems, business opportunities for northerners,  
6 in-migration, community housing, community services  
7 expansion, for such things as hospitals, education and  
8 recreation should be a responsibility of the Territorial  
9 Governments working in co-operation with the communities  
10 affected.

11 In effect then, the pipeline  
12 company should be monitored and controlled by the  
13 agency in those functions dealing more directly with  
14 on-the-ground construction, and monitored and controlled  
15 by the Territorial Government in those broader human  
16 or sociological functions affecting all northerners.  
17 We urge that upon you as a principle to be adopted.

18 This process of monitoring  
19 and regulation, sir, we would see as going from a design  
20 approval phase into a construction phase. The design  
21 phase is the period during which the agency, Territorial  
22 Governments, with the assistance of a Northern Advisory  
23 Board, or the advisory body to which I've referred,  
24 would approve the basic plan for subsequent implementa-  
25 tion in construction. Such approval would encompass  
26 all plans for environmental protection, sociological  
27 protection, engineering design, construction, hiring  
28 northerners, etc.

29 In other words, all these  
30 plans should be approved in sufficient detail that





after that approval has been received, everyone could proceed with confidence and with the expectation that there will be no major changes that would occur thereafter, except, of course, in extraordinary and unforeseen circumstances.

While I'm dealing with this design phase, this strictly doesn't belong here but perhaps I could deal with Mr. Scott's suggestion of a Geotechnical Review Board. Sir, we find no difficulty with this concept in the sense that we see this team of experts in that field as being an essential part of the agency. We see the agency as having to look at our final design and say, "Yes" or "No" or "Modify and we approve"

It is essential to the functioning of that agency that it should have available to it, if necessary by contracting out to eminent people in the field, it's essential that they know the field, for their views on our final design. I have no trouble with the concept so long -- what I do think we have trouble with is the concept of a Board out by itself without being subordinate to the agency. The single most essential concept that we have in this agency business is that there has got to be one place where the buck stops and where a decision is made, and we think that it is important from everybody's point of view that the situation where there are two equal conflicting authorities, <sup>who</sup> can't agree be avoided because you could have a stalled / <sup>project</sup> while two people are fighting out and the victims are going to be the company and the



public, and that should be avoided at all costs.

As I say we have no problems with the kind of Geotechnical Review proposed by Mr. Scott provided that the final authority resides and continues to reside with the agency.

Sir, the construction phase we see as a process of monitoring, really of monitoring what has been approved in the design phase of the project by these. You see, the design phase is where the main input from other interests should come. The construction phase would be a period of enforcement, of seeing to it that the basic plans approved during the design phase are really being carried out.

An exception to this, of course, would be in the event of an extraordinary occurrence came along not foreseen, where you would require changes in the design or the plan or a move. In that case the consultation process would be initiated again, but in those events it would be necessary, in our submission, that there be given to the authority or the agency sufficient authority to settle disputes that may arise, and there will be situations where disputes will arise. These disputes should be settled promptly .

Sir, that's all I have to say about the issue of a regulatory body except one thing. We most strongly urge that the Commission should recommend that the nucleus of such an agency should be the National Energy Board of Canada, with an expanded mandate and with the appropriate additions



1 to its staff sufficient to enable it to discharge its  
2 expanded functions. We strongly believe that the  
3 National Energy Board suitably expanded in both  
4 authority and personnel would be the most appropriate  
5 authority because of their long experience in carrying  
6 out their regulatory functions over interprovincial  
7 oil and gas pipelines in Canada.

8 In our submission, it would  
9 not be wise to make use of the already existing  
10 machinery within the N.E.B. in the setting up of an  
11 authority to administer a pipeline north of 60.  
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THE COMMISSIONER: Excuse me.  
Would you mind repeating that. I didn't quite follow you.

MR. GENEST: I said that--well, let me put it another way then. The N. E. B. exists. It has wide experience. It has a nucleus of staff that is experienced in dealing with these problems. I say it would be unwise to ignore it, to set up a brand new agency that doesn't make use of this.

THE COMMISSIONER: Yes, well I think you left out a word in your early statement. I see some--

MR. GIBBS: There was sort of a double negative there.

MR. GENEST: I couldn't fail to disagree with you less.

THE COMMISSIONER: All right, I've got you.

MR. GENEST: I'm sorry, sir. Now, of course, north of sixty I said it would be necessary to expand the N. E. B., give it extra authority, extra personnel.

South of sixty, we believe that there are overlapping jurisdictional problems with the provinces. There are overlapping authorities. But these can be adequately handled within existing structures because over the years a good satisfactory working relationship has been established over these bodies. I know, sir, that your concern is really north of sixty.





1 I'd like to turn now to another  
2 topic, which is that of route location. The principal  
3 issues that we see under this general title are first,  
4 recommendations that we should go down the Fairbanks  
5 corridor for Prudhoe Bay gas and use the Dempster  
6 Highway for delta gas. Mr. Gibbs is clapping.

7 Secondly, sir, there is a  
8 strong view expressed by many people that we should  
9 stay off the North Slope. Mr. Scott, I thought went  
10 a little far. I don't know if I heard him right, but  
11 I thought I heard him say that it was admitted by  
12 Arctic Gas that the risk of damage on the North Slope  
13 is so great that it cannot be borne. We certainly  
14 don't agree to that.

15 But it's a problem that we  
16 want to deal with. It's our submission that the  
17 environmental work done there has been extensive and  
18 shows that a gas pipeline can be built on the North  
19 Slope without unacceptable impact to the wildlife and  
20 the environment of that slope. The other issues are  
21 the cross-delta versus the circum-delta, the interior  
22 route versus those two, and the so-called Barry Route  
23 that is mentioned in Mr. Scott's submissions dealing  
24 with the place of crossing of Shallow Bay.

25 Mr. Marshall is going to deal  
26 in some detail with these. I have some general  
27 submissions. First, with reference to Mr. Scott's  
28 submission, he has recommended first that the Prudhoe  
29 Bay Gas Pipeline should not cross northern Yukon along  
30 either the coastal or the interior route, and he says,



1 notwithstanding what he said this afternoon, his  
2 submission says, and I think that he still sticks with  
3 that, that based on the limited review by this Inquiry  
4 of alternative pipeline corridors for a pipeline route  
5 across the Yukon Territories put forward by Arctic Gas,  
6 the Fairbanks corridor along the Alaska Highway offers  
7 environmental advantages over the routes across the  
8 northern Yukon.

9 I think Foothills echoes that  
10 view, if it's not the other way around. CARC, I think  
11 the submission by the Canadian Arctic Resources  
12 Committee is generally to the same effect. The  
13 submission made on behalf of the Yukon Brotherhood is  
14 very much opposed to that, and there are certainly  
15 a lot of statements that they make that I can submit,  
16 that I can support.

17 I have two general submissions  
18 to be made in this area, sir. I say first--and I think  
19 I'm echoed by Mr. Scott's remarks this afternoon on  
20 this, but I'm not sure. I say that it's not within  
21 your terms of reference to make a recommendation as  
22 to the Fairbanks route. It really ought not to be  
23 considered and reported on. In fact, sir, you excluded  
24 it I thought at least by implication in making your  
25 ruling, the ruling you made in the course of the southern  
26 hearings in Toronto, came up then. That's when you made  
27 it.

28 Now, on an application by the  
29 Council of Yukon Indians, which was supported by the  
30 Yukon or Whitehorse Chamber of Commerce, that you should



1 hold community hearings in the communities of the Yukon  
2 that might be affected by this. I don't think there is  
3 any need for me to read this ruling at length. But it  
4 was clear that you felt at the time that the consideration  
5 of any such route would have required a reference, a  
6 specific reference to you from the Minister, and that  
7 absent that reference, there's just no use in your  
8 going on to consider it.

9 What the pipeline guidelines,  
10 which are referred to in the Order-in-Council establishing  
11 your Inquiry say, with respect to the applications for  
12 a pipeline that the government is prepared to entertain  
13 are very specific. They lay out the two routes along  
14 which they say they're prepared to entertain an  
15 application down the Mackenzie Valley and it's either  
16 along the coast of the Yukon or through the interior  
17 of the Yukon.

18 Those are the routes which they  
19 ask you to assess. Your function really--here I am telling  
20 you what your function is. It's getting late. But  
21 your function primarily, sir, in my submission, my  
22 respectful submission, is to look at these routes and  
23 report on the government on what you think their impact  
24 is. If you consider it unacceptable, you can so report.  
25 But that's your primary function. It seems to me, sir,  
26 that it would be a useless exercise to say well,  
27 somebody has come up here and maybe they should go down  
28 the Dempster.

29 There's another ground that  
30 I want to advance, and that is that Mr. Scott is quite





1 wrong in saying that the limited review by this  
2 Inquiry indicates that the Fairbanks corridor offers  
3 environmental advantages. Mr. Marshall is going to  
4 deal with that in detail but there's some very grave  
5 environmental questions, some grave sociological  
6 questions raised by the Fairbanks corridor, which have  
7 not been really laid out before this Inquiry, but  
8 which exist.

9 MR. GIBBS: How can you deal  
10 with it if it hasn't been laid out before the Inquiry?

11 MR. GENEST: Well--what do I  
12 mean by what?

13 MR. GIBBS: Well you just told  
14 the Commissioner it's beyond his terms of reference and  
15 you say that there's been no evidence on it. So, how  
16 can Mr. Marshall deal with something that's not here  
17 and there's no evidence?

18 MR. GENEST: Because I'm on  
19 the horns of a dilemma. That's why.

20 THE COMMISSIONER: I understand.

21 MR. GENEST: I have two  
22 arguments. One is that they shouldn't be dealt with,  
23 but if you're going to deal with it, there are some  
24 things that you should consider.

25 THE COMMISSIONER: It's an  
26 alternative route.

27 MR. GENEST: That's right, in the  
28 alternative.

29 MR. GIBBS: It sounds like an  
30 ever decreasing circle.



1 THE COMMISSIONER: The pipeline  
2 guidelines called for Arctic Gas and Foothills to  
3 submit evidence regarding the suitability of the route  
4 they sought to follow compared to--

5 MR. GENEST: Alternative  
6 corridors.

7 THE COMMISSIONER: --alternate  
8 routes. And at Whitehorse last year Mr. Hemstock lead  
9 a panel speaking for Arctic Gas that dealt with those  
10 questions and in the material that you submitted, you  
11 dealt with the alternate routes.

12 MR. GENEST: That's right.

13 THE COMMISSIONER: The offshore  
14 route, the Fort Yukon route, the Fairbanks route, and  
15 it became apparent that no one was urging any of those  
16 routes as a serious alternative except the Fairbanks  
17 route along the Alaska Highway. There was evidence  
18 adduced, evidence was called about the environmental  
19 impact that that route would have. That's my  
20 recollection of what has happened and it seems to me  
21 that Arctic Gas, in obedience, as it thought to the  
22 guidelines, opened the matter up and discussed it and  
23 Canadian Arctic Resources Committee called a number of  
24 prominent American conservationists to deal with these  
25 questions and my recollection of their evidence  
26 certainly was that the best alternative, if one were  
27 forced to choose an alternative, would be the Fairbanks  
28 route.

29 I may not be doing justice to  
30 the discussion, but that's my recollection.



1 MR. GENEST: There's some  
2 evidence. There's no doubt. I think you put that  
3 quite clearly. What, of course, has not been considered  
4 is if you're going to have a project that carries out  
5 both functions of the Arctic Gas project, that is  
6 bringing gas from the delta and gas from Alaska, it's  
7 got to be one system. You're going to have a gas  
8 system from the delta down the Dempster Highway. What  
9 Mr. Marshall proposes to do is to say--I really don't  
10 think you're in a position to come to any different  
11 conclusion, but what we would like to do is to say  
12 don't jump on this proposition of Mr. Scott's.

13 There are a lot of disputes  
14 about the environmental preferability of the Fairbanks  
15 corridor with the Dempster Highway. There are a lot  
16 of question marks about it. A body in the United States  
17 has said, well, all right, if you look at the--what's  
18 the name of that outfit, Jack? The Federal Power  
19 Commission's environmental assessment team that says  
20 that there are environmental preferences in a straight  
21 Prudhoe Bay line down the Fairbanks corridor but if you're  
22 looking at the Foothills project as a project to bring  
23 delta gas and Prudhoe Bay gas south, it loses.

24 The Arctic Gas proposal is far  
25 environmentally superior. So, these are all contentions  
26 that exist. They're seriously advanced.

27 MR. GIBBS: Sir, I don't think  
28 anyone has seriously advanced the Dempster Highway.  
29 That's where I lost my friend as I listened to him.  
30





1 MR. GENEST: That's where you're  
2 bringing your gas down now.

3 What's today's  
4 route?

5 We'll hear  
6 tomorrow. Where was I?

7 Sir, I'm going to leave that  
8 mess to Mr. Marshall, as to the details. He's also  
9 going to deal with the North Slope, sir. The only  
10 general submission I make is that the fears which have  
11 been expressed are not justified in evidence. A  
12 pipeline can be built in the North Slope, that we  
13 know the parameters of the environmental damage that  
14 will occur, and these are small.

15 I do want to make one point,  
16 though, and that is that we agree that the building of  
17 a pipeline on the North Slope -- a gas pipeline on the  
18 North Slope should not create a precedent or a so-called  
19 energy corridor in that area. That was envisaged  
20 by the guidelines. I know that you have to report on it.  
21 As far as the corridor concept is concerned, we feel  
22 that you are in a position to report that the Mackenzie  
23 Valley is in general an appropriate place for an oil  
24 pipeline to come but that you are in no position to  
25 make a detailed impact assessment of the combined  
26 effects of an oil and gas pipeline.

27 Sir, since those guidelines  
28 have been written you have heard a lot of evidence  
29 about the validity of the so-called corridor concept.  
30 Many people, many scientists are not enamored of the





1 corridor concept. You heard Dr. Banfield, I believe,  
2 testify as to the synergistic effects that these two  
3 things have. In our view, sir, the merits of an oil  
4 pipeline when it comes, if it comes, should be judged  
5 on their own, especially so on the North Slope.

6 But we say that as far as  
7 a gas pipeline is concerned the evidence has shown its  
8 impacts to be known and to be acceptable.

9 Sir, I'm changing subjects  
10 -- I'm prepared to go on all night, but with suitable  
11 breaks, and --

12 THE COMMISSIONER: I think we  
13 want to get the most out of this discussion. Some of  
14 you were flying around in the fog this morning. That's  
15 not to say we have been this afternoon, but some people  
16 may feel a certain measure of fatigue.

17 How are we doing? Is it  
18 appropriate to adjourn now? We want to consider the  
19 impact of events in another part of the country in any  
20 event this evening, so when should we come back in the  
21 morning?

22 MR. SCOTT: 9:30, sir.

23 THE COMMISSIONER: All right.  
24 I think we'll come back at 9:30. We'll adjourn to 9:30  
25 A.M.

26 (PROCEEDINGS ADJOURNED TO NOVEMBER 16, 1976)

27  
28  
29  
30



1 Yellowknife, N.W.T.

2 November 16, 1976.

3 (PROCEEDINGS RESUMED PURSUANT TO ADJOURNMENT)

4 MR. SCOTT: Mr. Commissioner,  
5 before we begin, when Mr. Skinnarland was here on the  
6 CARC panel that dealt with enforcement he was asked  
7 certain questions about the report of the working  
8 group on government, and he undertook to let us have  
9 his comments in writing. Those comments are now here  
10 and I would ask that they be made the next exhibit.

11 (MEMO FROM E. SKINNARLAND DATED NOVEMBER 2, 1976  
12 MARKED EXHIBIT 892)

13 MR. SCOTT: Mr. Genest?

14 MR. GENEST: Thank you, Mr.  
15 Commissioner. Perhaps I could deal the first thing  
16 this morning with the question that you raised last  
17 night relating to what I understood you saw as an  
18 apparent inconsistency between some evidence tendered  
19 by Mr. Trusty as to construction jobs and the imperman-  
20 ent nature of these jobs, and the stance we're taking  
21 in the --in our argument, indeed in our application  
22 and in much of our evidence that construction will  
23 offer job opportunities.

24 As I understood you, sir,  
25 you understood the effect -- and perhaps I'd just  
26 better read the transcript; your remarks are at page  
27 31696 of yesterday's transcript, and in referring to  
28 Mr. Trusty's evidence you said:

29 "I recall he told us that it would be a  
30 mistake -- and I hope I'm doing justice to



1 his evidence -- but he told us that it would  
2 be a mistake for native persons to be employed  
3 on pipeline construction. He put that proposi-  
4 tion generally speaking because he said once  
5 the pipeline is built, if there is no looping  
6 and no oil pipeline subsequently, then they  
7 will have developed skills for jobs that won't  
8 exist any longer.

9 That, of course, has been a point  
10 raised again and again by witnesses in the  
11 communities and here at the formal hearings.  
12 There's nothing novel about the point.

13 Mr. Trusty said, 'Well, I think the  
14 emphasis should be on native people being  
15 trained as carpenters to build wharves be-  
16 cause wharves will need to be constructed,  
17 and then the skills that they achieve as  
18 carpenters building wharves to offload  
19 pipeline equipment coming down on the barges  
20 can be used to build houses after that.'

21 Sir, the response that I  
22 have to make to that is that -- and I do it with  
23 respect -- is that I have searched the transcript  
24 last night and I couldn't find a statement by Mr.  
25 Trusty which put the matter in the broad way in which  
26 you seem to recollect that he had put it.

27 What Mr. Trusty did say --  
28 and I will give you the page references, I don't  
29 think I'll read them -- is that there are jobs on a  
30 pipeline that are strictly pipeline-related. The two





1 chief examples are a welder and a side-boom operator.  
2 Those jobs, any training for that skill, of course,  
3 is of use on a pipeline, and if there is no pipeline  
4 construction there is no skill.

5 In fact, there are three  
6 levels, three broad levels of skill on a pipeline.  
7 On pipeline work there is highly specialized pipeline  
8 related skills, then there are a host of skill jobs  
9 which are more general. These were described by Mr.  
10 Williams and Mr. Carlson. The examples are dozer  
11 operators, backhoe operators, electricians, plumbers,  
12 mechanics, carpenters. The evidence is that there  
13 is a large number of those jobs available during the  
14 construction phase of the evidence.

15 The thrust of Mr. Trusty's  
16 evidence was that the training -- it would be prefer-  
17 able for native people to become trained in those  
18 jobs that I've just enumerated. There is going to be  
19 a continual demand, in our submission, for that kind  
20 of job. An electrician, for instance, and there is a  
21 need for a number of electricians -- for a large number  
22 of electricians, is going to have use for his skill in  
23 any ongoing activities in the north.

24 Compressor stations -- and there  
25 are quite a number of them -- require a number of these  
26 people. There are going to be truck drivers, the drivers  
27 of heavy equipment whose skills can be used in any  
28 continuing activity in the north.

29 So I cannot find, sir, any  
30 reference to -- and I must confess to you that I have



1 not exhaustively studied every line of transcript --  
2 but certainly the thrust of the evidence, and there  
3 are many statements, and I'll give you the references  
4 in a moment, but there are many jobs which will provide  
5 training in various degrees where the skills acquired  
6 during that job are of general application and are not  
7 strictly pipeline-related; and it is certainly not  
8 Arctic Gas' submission that natives should be dis-  
9 couraged from working in construction.

10 In fact, sir, I don't think  
11 it is up to us to say that if a native person would  
12 like to be a welder or would like to be a side-boom  
13 operator, our position is that we can't say, "No, you  
14 can't have that job because you won't be able to use  
15 that skill." That person will surely have the freedom  
16 to say, "I would like to become trained in pipeline  
17 construction and perhaps move south."

18 You cannot refuse these. I  
19 think where perhaps you may have gained an impression  
20 that that was the stance of Mr. Trusty was in an  
21 exchange when Mr. -- I think it was Mr. Boorkman or Mr.  
22 Weinstein was speaking of one problem of construction  
23 activity which is to attract from a community persons  
24 who have a job there to the high pipeline wages.  
25  
26  
27  
28  
29  
30



1                   Mr. Trusty acknowledged, as we  
2 all do, that that is a problem; that there were some  
3 solutions to it which were not perfect and that is that  
4 people should realize that part of the reason for the  
5 high wages on pipeline construction are the long hours,  
6 the confined conditions, the exposed conditions and  
7 that in the communities that should be made known that  
8 there are pluses and minuses to pipeline construction.

9                   Mr. Trusty also suggested that  
10 with the increased markets and the increased economic  
11 activity employers in the communities who were affected  
12 by this phenomenon of people wanting to leave a job  
13 there to go on to the pipeline could offer more over-  
14 time and could be more competitive.

15                   The fact is there is a problem  
16 there that is going to exist but as far as the general  
17 stance is concerned, it is certainly not our submission  
18 and in my submission it is not the thrust of Mr. Trusty's  
19 evidence that native people should not be encouraged  
20 to come to to work on the pipeline. There are many  
21 skilled jobs that will be of continuing use. There is  
22 a whole other area of jobs, a large number, which was  
23 testified to by the panel consisting of Mr. Carlson,  
24 Mr. Williams and I believe Mr. Trusty, that don't  
25 require any particular skill except the skill of  
26 adapting to a wage economy. They are what are called,  
27 without denigration, common labouring jobs.

28                   Of course, these don't teach  
29 you--they give you money while you are doing it. They  
30 don't teach you any particular skill except the general





1 one of adapting a person who wants to do that kind of  
2 thing to a wage type of economy. But there are, sir,  
3 and I'll give you the transcript references in a moment,  
4 quite a large number of jobs that fit into the  
5 category I described. They are not highly pipeline  
6 related. They teach skills that are going to be of  
7 use in construction activities in communities, in any  
8 kind of development scenario that you can paint. They  
9 will be of continuing use and <sup>of</sup> continuing benefit to  
10 people who become employed in construction.

11 The references, sir, are mainly  
12 found in Volume 161 and perhaps I can just give you the  
13 page numbers. 24859 and 860. 24865, 24883, 24782, and  
14 that's as to the number of jobs. Then there is an  
15 answer contained in the response to PAAG question  
16 number 2.

17 The exchange with the Ursa  
18 panel, the Alaska panel was at Volume 159, page 24394.  
19 Those are all the references I've been able to find,  
20 but what I've expressed now certainly expresses the  
21 position of Arctic Gas in connection with that issue.  
22 I hope that I've answered the question and I hope I've  
23 understood it, and--

24 THE COMMISSIONER: No, I  
25 understand you. Thank you.

26 MR. GENEST: Sir, could I move  
27 on now to certain engineering aspects that I wanted  
28 to address very briefly. The first is the question of  
29 frost heave and what I want to say is really not in the  
30 nature of an argument. It is more in the nature of





1 giving the Commission the benefit of our latest  
2 information. I think one of the questions that may  
3 arise in your mind when you're dealing with the technical  
4 aspects of the project, I certainly found that myself,  
5 is now when you're reading about a construction schedule  
6 and when you're reading about a river crossing, you say  
7 now here was a solution proposed by Arctic Gas; does  
8 frost heave affect this?

9                   What we've attempted to do and  
10 it is contained in the written submission we have filed.  
11 I don't know if you have a copy in front of you. I can  
12 give you that. What we've attempted to do, sir, is to  
13 recapitulate the problem for you perhaps in a more  
14 expanded way than was done in the answers to the  
15 questions that were given to you in the middle of  
16 October and we have tried to set out the alternative--  
17 again, some details on the alternative design measures  
18 that we're considering. Now, these are set out from  
19 page B5. If you'll turn sir to--perhaps I could give  
20 you the reference. It's page B1, it starts, towards  
21 the beginning of the volume.



1                   The introduction is really  
2   a recapitulation of the, of some of the information.  
3   Paragraph (b), the problem, again is an attempt to  
4   give you the best information we have as to our  
5   analysis of what it is that occurred, the type of  
6   malfunction.

7                   Paragraph (c) on page B-4  
8   sets out the alternative design measures which are  
9   insulation of the pipe, insulation of the pipe with  
10   heat trace, operation of a pipeline at a temperature  
11   closer to 32 degrees, replacement of frost-susceptible  
12   soil, placement of pipe with insulation within a  
13   berm on the ground surface.

14                  Then, sir, if you'll go to  
15   page B-8, what we've tried to do there is to indicate  
16   to you those areas of the proposal that are not affect-  
17   ed by any questions relating to frost heave.

18                  First of all, the general  
19   route is not going to be affected. The window is not  
20   going to be affected except that there may be some  
21   changes to take advantage of local soil conditions.  
22   Mechanical design is not affected, Our construction  
23   plan is not affected.

24                  At page B-9, sir, we have  
25   set out the range of changes to be expected. River  
26   crossings, the last point of cold flow about which I  
27   think Mr. Marshall has something to say. There will  
28   be some changes in construction personnel depending  
29   on which alternative method of inhibiting frost heave  
30   is used; but it is not going to be significant.



1                   There is going to be some  
2 change -- there may be some change in above-ground  
3 facilities and there may be some change in our  
4 operations and maintenance procedures.

5                   Sir, if you'll then turn to  
6 page B-12, we have given you here our latest informa-  
7 tion as to the Shallow Bay crossing. Some evidence --  
8 you heard a considerable amount of evidence as to  
9 Shallow Bay. Further analysis led to some changes  
10 in procedure, mainly including deeper burial because  
11 of new soil data that we had obtained. That evidence  
12 was given before the N.E.B. but not given to you here.  
13 While we were preparing that evidence to advance  
14 before these hearings the problem relating to frost  
15 heave came up and I thought that what we would try to  
16 do here is to set out what the latest information is.  
17 I don't think there is much purpose to be gained by  
18 my just reading it out. I thought I would just bring  
19 it to your attention.

20                   Of course it is very  
21 appropriate to speak immediately after these  
22 problems of the question raised by a number of parti-  
23 cipants and Commission Counsel relating to the burden  
24 of proof, the data base upon which we're operating,  
25 the question that some have raised as to whether a  
26 pipeline can be built, whether we possess the necessary  
27 skills and the necessary knowledge; and associated  
28 with that question is a vast number of suggestions  
29 for further study and further research that has been  
30 advanced by a number of participants, and in particular





1 the Canadian Arctic Resources Committee.

2 There can be no doubt that  
3 the ARctic Gas project represents a project which has  
4 been more thoroughly researched from an engineering  
5 and environmental point of view than any project in  
6 the history of the industrial world, any industrial  
7 project. A lot of the information developed has  
8 been of general scientific benefit. The effort, of  
9 course, was directed towards providing a data base  
10 and providing information that would enable us to  
11 build a pipeline safely and properly and without  
12 undue damage to the environment.

13 A burden of proof was  
14 imposed upon us by the pipeline guidelines. I think  
15 it can be generally described as saying that the  
16 burden was to provide sufficient data to satisfy you  
17 that a pipeline was technically feasible in this  
18 country, in this terrain, enough data to enable you  
19 to make the impact assessments which the guidelines  
20 call for.

21 There are uncertainties.  
22 Frost heave is, of course, the example that everybody  
23 uses. But my submission is, sir, that we have  
24 demonstrated the parameters of the uncertainties. We  
25 have indicated the areas of risk even though in some  
26 cases we have not been able to come down and say,  
27 "This is exactly where it is."

28 It's my submission that in  
29 all of these areas in the environmental area, dealing  
30 with impact on the biota, if that's the word, we have



1 shown the range of impacts and in that sense, sir,  
2 it is my submission that we have discharged the burden  
3 of proof.

4 Final design work needs to  
5 be done. An agency, we assume, will exist to approve  
6 these final designs. We assume and we expect that that  
7 agency will have to be satisfied that our final design  
8 proposals are feasible and will work. But it's my  
9 submission, sir, that if we're talking about the  
10 general burden of proof that Arctic Gas more than met  
11 it, that in those areas where there are uncertainties  
12 we have demonstrated that there is a range of options  
13 which are feasible and which will not produce  
14 unacceptable environmental impacts.



1 Now, the CARC submission urge  
2 upon us the conduct of vast amounts of additional  
3 environmental research. Commission Counsel's submission  
4 also makes that point. I want to illustrate a couple  
5 of requests from the CARC submission. There are over  
6 a hundred, I believe, recommendations for further  
7 studies on caribou.

8 One of them, the second one,  
9 reads as follows:

10 "Further caribou studies should include attempts  
11 to ascertain the size of a caribou herd which is  
12 necessary for its survival, and to understand  
13 whether the particular Porcupine caribou herd  
14 could withstand certain disturbances and still  
15 recover".

16 Now, this is a subject of  
17 interest but, in my submission, it is of academic  
18 interest and indeed it may be difficult to determine  
19 what is sought to be determined experimentally. In the  
20 light of Dr. Bergerud's testimony of how it was possible  
21 to rebuild a herd from only a handful of animals. We  
22 find it difficult to see any purpose to a study of this  
23 kind.

24 Another suggestion is that  
25 further investigations should be carried out into the  
26 disappearance of the Forty mile herd, since this  
27 information could give insight into the type of  
28 disturbance that leads to such extinction or grave  
29 depletions of herds.

30 Now, I think that follows from





1 Dr. Geist's evidence, but it was put to Dr. Geist in  
2 his evidence in the biological report series that the  
3 Forty mile herd is alive and well in Alaska.

4 There is considerable data  
5 on that herd. Another recommendation is that population  
6 estimates of the various caribou herds should be taken  
7 using air photos of post-calving aggregations. We have  
8 ample population estimates made regularly by Renewable  
9 Resources that have been testified to in evidence.

10 Now, the point, sir, is that  
11 there is always a need for research. Scientists are  
12 insatiable in their thirst for data. There is in  
13 particular in the North some research that could usefully  
14 be conducted which would be of benefit to game manage-  
15 ment agencies, but our submission is that that must  
16 be a governmental responsibility and not the responsibility  
17 of a pipeline company.

18 The responsibility of a pipeline  
19 contractor is to assemble enough data to enable it to  
20 carry on its projects in a way that will not be  
21 harmful. It is to gather data that will inform its  
22 working forces as to what measures they must take. Data  
23 as was gone into by Mr. Scott in his cross-examination,  
24 which would lead towards the production of a environ-  
25 mental management manual.

26 Sir, we were asked in cross-  
27 examination by Mr. Scott what was being done in this  
28 regard. I have here a draft and a draft of the first  
29 volume of a nine volume environmental management  
30 manual that Arctic Gas is presently at work preparing.





1 I think it would be of some use. I don't use it as  
2 evidence. I use it as an illustration of the kind of  
3 work towards which scientific research is directed.  
4 I'd like to leave it with you, if I may. I'll hand  
5 it to Miss Hutchinson.

6 Sir, that concludes the  
7 submissions I'm going to make. Now, Mr. Marshall is  
8 going to be dealing with some items of particular  
9 interest. Since it's the last time I speak, and since  
10 I'm the first of the participants to speak, perhaps I  
11 could say something on which I'm sure--perhaps the only  
12 thing said on which I'm sure there's going to be no  
13 disagreement from other participants, and that is, sir,  
14 to respectfully tender to you the tribute, and  
15 I'm sure I speak on behalf of all counsel, that we feel  
16 it is due you for the way in which you conducted this  
17 Inquiry and in particular to the way in which you have  
18 conducted your relations with counsel engaged.

19 Your patience has been  
20 inexhaustible. Your courtesy has been always on a very  
21 high level, even though it has been I'm sure sorely  
22 tempted. The chief characteristic to which I would like  
23 to pay tribute, sir, is your good humour, your ability  
24 to take things seriously but not yourself seriously, and  
25 it has been a real privilege for all of us to participate  
26 in this, and be before you in this very long travail.  
27 I'd also like to, on behalf of Arctic Gas, and I'm sure  
28 on behalf of everyone, pay tribute to your Inquiry staff  
29 and Miss Hutchinson who again has always been of good  
30 cheer, very helpful and very cooperative, and it's been

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Vol. 200

AUTHOR

Mackenzie Valley pipeline inquiry:

TITLE

November 15, 1976

BORROWER'S NAME

*author*

~~DEC - 3 1977~~

*Dave*

~~FEB 11 1977~~

*Jim*

~~MAR 9 1977~~

*Dan Schuster*







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## MACKENZIE VALLEY PIPELINE INQUIRY

IN THE MATTER OF THE APPLICATIONS BY EACH OF  
(a) CANADIAN ARCTIC GAS PIPELINE LIMITED FOR A  
RIGHT-OF-WAY THAT MIGHT BE GRANTED ACROSS  
CROWN LANDS WITHIN THE YUKON TERRITORY AND  
THE NORTHWEST TERRITORIES, and  
(b) FOOTHILLS PIPE LINES LTD. FOR A RIGHT-OF-WAY  
THAT MIGHT BE GRANTED ACROSS CROWN LANDS  
WITHIN THE NORTHWEST TERRITORIES  
FOR THE PURPOSE OF A PROPOSED MACKENZIE VALLEY PIPELINE

and

IN THE MATTER OF THE SOCIAL, ENVIRONMENTAL AND  
ECONOMIC IMPACT REGIONALLY OF THE CONSTRUCTION,  
OPERATION AND SUBSEQUENT ABANDONMENT OF THE ABOVE  
PROPOSED PIPELINE

(Before the Honourable Mr. Justice Berger, Commissioner.

Yellowknife, N.W.T.

November 16, 1976.

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PROCEEDINGS AT INQUIRY

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Volume 201





APPEARANCES:

Mr. Ian G. Scott, Q.C.,  
Mr. Stephen T. Goudge,  
Mr. Alick Ryder, and  
Mr. Ian Roland, for Mackenzie Valley Pipeline Inquiry;

Mr. Pierre Genest, Q.C.,  
Mr. Jack Marshall,  
Mr. Darryl Carter,  
Mr. J.T. Steeves, and for Canadian Arctic Gas Pipeline Limited;  
Mr. Gerry Ziskrout,

Mr. Reginald Gibbs, Q.C.,  
Mr. Alan Hollingworth,  
Mr. John W. Lutes, and for Foothills Pipe Lines Ltd.;  
Mr. Ian MacLachlan,  
Mr. Russell Anthony,  
Prof. Alastair Lucas and  
Mr. Garth Evans, for Canadian Arctic Resources Committee;

Mr. Glen W. Bell and  
Mr. Gerry Sutton, for Northwest Territories Indian Brotherhood,

Mr. John Bayly and  
Miss Lesley Lane, for Inuit Tapirisat of Canada, and The Committee for Original Peoples Entitlement;

Mr. Ron Veale and  
Mr. Allen Lueck, for The Council for the Yukon Indians;

Mr. Carson Templeton, for Environment Protection Board;

Mr. David H. Searle, Q.C. for Northwest Territories Chamber of Commerce;

Mr. Murray Sigler and for The Association of Municipalities;  
Mr. David Reesor,

Mr. John Ballem, Q.C., for Producer Companies (Imperial, Shell & Gulf);

Mrs. Joanne MacQuarrie, for Mental Health Association of the Northwest Territories.

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1 a pleasure, if we call it doing business. It's been  
2 a pleasure to do with business with her. That concludes  
3 my remarks, sir.

4 MR. MARSHALL: Mr. Commissioner,  
5 I wish to deal with certain of the aspects of the  
6 written submissions that were filed November the 8th.  
7 Specifically, I'd like to deal with matters related to  
8 location of facilities. Certain topics, three in  
9 number, under geotechnical heading, construction matters  
10 and a brief point on operations and maintenance.

11 The first topic I'd like to  
12 deal with, sir, relates to location, and specifically  
13 the Fairbanks corridor. Sir, there was some evidence  
14 that with respect to a Fairbanks corridor considered  
15 alone; that is without a supply lateral connecting  
16 delta reserves, that it might provide environmental  
17 advantages over the prime route proposed by Arctic Gas  
18 across the North Slope.

19 It is submitted, however,  
20 unfair to compare the routes on that basis because the  
21 Arctic Gas proposal is to bring gas from two sources,  
22 not just one. And to be fair, any route comparison  
23 has to be between proposals with routes connecting  
24 both gas supply areas. That would require, therefore,  
25 sir, a comparison of the Arctic Gas prime route as  
26 against either the Alcan-Foothills, Yukon-Foothills  
27 maple leaf line which would connect both sources; or  
28 the Fairbanks corridor with the Mackenzie Delta supply  
29 lateral via the Dempster which was considered by the  
30 Arctic Gas witnesses when they dealt with the alternative

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MR. MARSHALL: MR. COURT

1 corridors portion of the filing, evidence given in  
2 Whitehorse.  
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Now, sir, to consider firstly the Fairbanks-Dempster corridor which was discussed by the Arctic Gas witnesses in Whitehorse, the environmental witnesses presented by Arctic Gas -- and these are the only ones really who have undertaken an assessment of that corridor and who appeared before this Inquiry concluded-- with the exception of Dr. Gunn, that it was environmentally less preferable than the route that as proposed. It would be a substantially longer route, it would traverse multiple terrain types, each of which present its own complex network of environmental problems. There would be a number of topographical constraints, a number in Alaska and a number in the Yukon, such as Kluane Lake and Chute Mountain which would leave very little latitude for routing changes to accommodate environmental concerns.

The route would traverse valleys which are areas of wildlife and fish concentration, would go through an area of greater seismic potential, it would go through an area of approximately 1,000 miles of discontinuous -- or 1,000 more miles of discontinuous permafrost than the other route. It would be more difficult to construct and to rehabilitate disturbance because of the more complex topography. It would require more summer construction, and thus a greater degree of contact with fish and wildlife.

Sir, it would give the superficial appearance of following disturbed areas and thus creating only incremental impact. Although the gas pipeline will run in the general vicinity of



1 the Alyeska Oil Pipeline, it would deviate it, deviate  
2 from it by substantial distances in many places where  
3 any environmental impact would occur in previously  
4 unimpacted areas.

5 Furthermore, a pipeline along  
6 the Alcan Highway portion of the Fairbanks corridor  
7 would stray great distances from previously disturbed  
8 areas. This is due in part to the fact that the  
9 highway meanders according to topography, while the  
10 pipeline would generally be built in as straight a  
11 line as possible.

12 Further, even where the route  
13 was through a previously disturbed area, it has not  
14 been established that the added impact would only  
15 be incremental rather than synergistic.

16 Finally, it would not go  
17 through an area holding much potential for future  
18 further gas reserves.

19 Now, sir, if one were to  
20 compare the Alcan-Foothills-Yukon-Foothills-Maple Leaf  
21 proposal as it has been put forward elsewhere with the  
22 Arctic Gas prime route, one would have to take into  
23 account a number of factors, and I just put these  
24 forward not as evidence but as an indication of the  
25 types of factors that would have to be taken into  
26 account were this matter to be considered and were  
27 you to make a recommendation, as Mr. Scott has  
28 suggested, that the Fairbanks corridor is environmen-  
29 tally preferable.

30 Among them are these, sir.



1 It would require much more summer construction.  
2 It involves construction of hundreds of additional  
3 miles of pipeline, as far as substantial distances of  
4 new right-of-way in previously undisturbed areas.  
5 In the case of the pipeline in the Yukon and in British  
6 Columbia, there would be a marked deviation from the  
7 Alaska Highway alignment.

8 In the Yukon it would pass  
9 through portions of the Kluane Game Sanctuary, which  
10 I am told is a unique wilderness area. It would  
11 skirt the proposed Kluane National Park, and if the  
12 proposed extension of the park were approved, it might  
13 be within the park itself. It would go through a  
14 number of I.B.P. sites and the combined system that  
15 I've been describing would carry less gas than the  
16 Arctic Gas system, and hence there would be more  
17 likelihood of looping being required at an earlier  
18 date. Much more of the route would parallel  
19 streams and valleys.

20 Mr. Commissioner, both of  
21 these alternatives to the Arctic Gas proposal when  
22 considered with their various constituent elements  
23 really contemplate a sort of trade-off. A short  
24 section along the North Slope from Prudhoe Bay to  
25 Tununuk as against hundreds of miles of additional  
26 pipeline, many of which would be outside of any  
27 presently established corridor; two cleared rights-of-  
28 ways cutting from top to bottom across the northern  
29 Boreal Forest; impingement on a wildlife sanctuary,  
30 which I'm told is something that's more sacred than







1 a range; a possible impingement on a National Park,  
2 and of course the production of very substantial  
3 additional quantities of steel for the pipe with the  
4 attendant environmental disruption that that sort of  
5 activity entails. Many more compressor stations,  
6 dedication of substantial additional acreages, perman-  
7 ent and temporary facilities, loss of considerably  
8 more timber, and in the end result a system that is  
9 less energy-efficient and hence wastes the environmen-  
10 tally preferred fuel that is now so much in demand.

11 MR. GIBBS: Now, sir, I'm not  
12 one often to interrupt another counsel making a  
13 submission, but surely this is not withstanding his  
14 assertion <sup>to the</sup> contrary evidence he's giving that has  
15 never been before this Inquiry. It may come out if  
16 and when the Foothills-Yukon is referred to this  
17 Inquiry or someone like it; but surely that is a  
18 recitation of evidence from beginning to end.

19 THE COMMISSIONER: Well,  
20 before you carry on, is the recitation of these  
21 matters, however they are described, complete?

22 MR. MARSHALL: I must say,  
23 sir, I was led into this not only by my friend, Mr.  
24 Scott, with his recommendation that the Fairbanks  
25 corridor offers advantages, but also by Mr. Gibbs'  
26 detailed written submissions which I'm sure taxed  
27 him over the weekend, where he submitted that the  
28 Maple Leaf project is superior to the Arctic Gas  
29 project in those aspects of particular interest to the  
30 Inquiry, and particularly so in the light of the



1 Foothills-Yukon project, which provides an alternate  
2 means of transporting Alaskan gas overland.

3 I thought, sir, that as  
4 my friend was going to be urging that upon you, that  
5 I ought to at least indicate that there were a number  
6 of factors that, if you were going to give considera-  
7 tion to this, you should be taking into account.

8 But I've finished the  
9 recitation of those items.

10 MR. GIBBS: What are your  
11 witness fees, Jack?

12 MR. MARSHALL: Sir, it is  
13 submitted that what you have been asked by Mr. Scott  
14 to do is to examine a couple of trees in the forest  
15 rather than the forest itself. A true environmental  
16 assessment of the Arctic Gas proposal, as against the  
17 Fairbanks corridor proposal that would carry gas  
18 from both Prudhoe Bay and the delta to market would  
19 require a detailed analysis of these very broad  
20 environmental questions, evidence concerning which is  
21 not, as Mr. Gibbs points out, before the Inquiry.

22 Furthermore, the relative  
23 environmental impact of competing projects is only  
24 one of a number, a great number of factors that must  
25 be taken into account in deciding which is the  
26 preferable system. Specifically matters such as the  
27 cost of service and proximity to areas of potential  
28 future discovery are relevant and undoubtedly will be  
29 weighed by agencies having jurisdiction over such  
30 matters.



1 Now, sir, I would, if I  
2 may, like to refer to a portion of the submission  
3 that Mr. Veale has submitted on behalf of the Council  
4 for Yukon Indians, because he's addressed this matter  
5 in his section on alternative corridors, and I think  
6 he's put some of it very well and it's very apt, and  
7 I'd like to review part of that.

8 Mr. Veale said this, sir:

9 "A great number of environmental witnesses,  
10 including consultants for the applicants,  
11 Arctic Gas, indicated that the Fairbanks  
12 corridor appeared to be environmentally less  
13 damaging. In our opinion, an adequate  
14 environmental assessment of the Fairbanks  
15 corridor has yet to be conducted. We submit  
16 that any assessment of the Fairbanks pipeline  
17 corridor must include an assessment of the  
18 Dempster Highway lateral at the outset. It  
19 must be made clear that the Dempster Highway  
20 lateral from Mackenzie Delta to the Fairbanks  
21 corridor will have an impact upon the Porcupine  
22 caribou herd and will be an integral part of  
23 that corridor proposal. We do not accept the  
24 view that the Dempster Highway will have al-  
25 ready impacted the area as justification for  
26 such a pipeline routing. We submit that the  
27 evidence of the caribou biologists indicate  
28 that a highway alone is not the severe danger  
29 to the Porcupine caribou herd but rather the  
30 heavy traffic use of the highway which results





1 in the impact upon the caribou herd. To the  
2 extent that pipeline development contributes  
3 to major and heavy traffic use to the Dempster  
4 Highway, we submit that the Fairbanks corridor  
5 cannot be stated to be more acceptable from  
6 an environmental viewpoint.

7 Several witnesses have made qualified  
8 endorsements of the Fairbanks corridor as being  
9 environmentally less damaging on the assumption  
10 that there would be no Dempster Highway lateral  
11 from the Mackenzie Delta. We submit that even  
12 this qualified endorsement has not been demon-  
13 strated by expert opinion formulated from  
14 baseline data. In fact there is no baseline  
15 data on the Fairbanks corridor. There are a  
16 number of other considerations that have been  
17 urged in support of the view that the Fairbanks  
18 corridor is environmentally of less damage  
19 than the prime or interior routes.

20 Without reiterating the unique aspects  
21 of the prime and interior routes from a wild-  
22 life point of view, the inference is made that  
23 because the Fairbanks corridor has already been  
24 impacted by the construction and use of the  
25 Alaska Highway, that environmental damage  
26 will be significantly reduced."

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1 "As this contention is not based upon hard fact we  
2 cannot accept its validity. Further, this  
3 contention has absolutely no validity when one  
4 considers the social and economic impacts that  
5 will occur. In fact, from a viewpoint of the  
6 native people living along the Alaska Highway,  
7 it is readily apparent that they are less able  
8 to withstand the pipeline impact. The stress  
9 the still remains in communities as the result  
10 of construction of the Alaska Highway and ready  
11 access to all the communities leads us to  
12 anticipate a situation of considerable impact.  
13 The quandary for the Council for Yukon Indians  
14 is that if we are successful in preventing the  
15 social and environmental disruption of the  
16 northern Yukon, we <sup>may</sup> then be faced with the  
17 same disruption along the Alaska Highway where  
18 the greatest majority of Yukon native people  
19 reside.

20 It is along the Alaska Highway that the time-  
21 frames for the implementation of a land claim  
22 settlement may be the longest, simply because  
23 of the previous social and economic disruptions  
24 to Indian communities".

25 Sir, Mr. Veal will no doubt  
26 want to expand on these remarks but I thought he had  
27 put it much more better than I could and I wanted  
28 to refer to his remarks now. What he gets down to  
29 is this, sir, there is not sufficient evidence before  
30 you to enable you to make a full and complete relative



1 environmental assessment as between the Arctic Gas  
2 proposal and the Fairbanks corridor proposal even if  
3 your terms of reference allowed you to consider this  
4 matter.

5 Accordingly, we ask that you  
6 reject the recommendation of Mr. Scott and others; that  
7 you find the Fairbanks corridor route to be environ-  
8 mentally preferable to that proposed by Arctic Gas.  
9 Instead we ask you to consider that detailed scientific  
10 assessment that has been placed before you as to what  
11 the impact is likely to be of construction of the  
12 pipeline along the North Slope. It is submitted that  
13 in doing so the evidence must lead you to the conclusion  
14 that construction along that route would not lead to  
15 unacceptable environmental impacts.

16 Now, sir, I'd like to deal with  
17 the North Slope. Environmental issues have been debated  
18 before you, I think, exhaustively and the principal  
19 ones appear to me to be the following:

- 20 1) The Arctic National Wildlife Range and its  
21 proposed extension into Canada.
- 22 2) The calving grounds of the Porcupine caribou  
23 herd .
- 24 3) The North Slope snow geese staging grounds.

25 Sir, these issues have been  
26 considered in some detail in the written submissions  
27 that we have made under heading "F", Item 1, North  
28 Slope, and I would like to review those now, if I may.  
29 Sir, firstly with respect to the Arctic National  
30 Wildlife Range, as there is no range at present--this



1 begins at section "F", sir. As there is no range at  
2 present in Canada, the written submissions before you  
3 have dealt with the Arctic National Wildlife Range in  
4 Alaska as it appears to be the model sought to be  
5 extended into Canada, and it's my submission that the  
6 considerations relating to the Alaskan range presently  
7 existing would apply virtually equally to the proposed  
8 extension of that range into the Yukon.

9 Sir, let us first be clear  
10 as to what the range is not and it is not a national  
11 park or a wilderness area in the legal sense, and it is  
12 not an area where all industrial uses are prohibited,  
13 and it is not an area where wildlife are protected from  
14 hunting; nor is the entire range an area that is free  
15 from human incursion. It has, <sup>in</sup> the United States, the  
16 legal status of a wildlife range and as I will mention  
17 in more detail further, something similar seems to be  
18 contemplated for Canada.

19 Certain industrial activities  
20 can be permitted within the wildlife range and  
21 specifically that includes pipelines. Hunting particularly  
22 of caribou does take place and I understand that it's  
23 both commercial and domestic. While portions of the  
24 range have remained virtually untouched by man and might  
25 be said to have maintained a wilderness character,  
26 others, particularly near the coast, have seen human  
27 incursion, such as whaling, fur trading, three DEW line  
28 stations, hunting, the village of Kaktovik, research  
29 station at Schrader Lake, emergency airstrips and  
30 cabins. There are, I'm told, thousands of old oil





1 barrels, an abandoned ship at Demarcation Bay, and a  
2 number of tractor trails.

3 So, even if wilderness status  
4 were to be afforded to the range by the United States  
5 Congress and there was considerable discussion of that  
6 before you, sir, in Whitehorse, it is submitted that  
7 it follows from the historic activity within the  
8 boundaries of the range that at least certain parts  
9 of it may not qualify for such a designation.

10 Sir, I've gone on in this  
11 submission then to deal with the nature and the degree  
12 of the incursion that's proposed in the range. I don't  
13 think it's necessary to deal with that in any great  
14 detail; simply to say that it's proposed that there  
15 be a one year program of winter construction, future  
16 construction over several years of three compressor  
17 stations.

18 Now, the area that would be  
19 required for permanent right-of-way and temporary  
20 right-of-way amounts to .04 percent of the 8.9 million  
21 acres total area of the wildlife range. Sir, the  
22 discussion in Section "F" then goes on to deal with  
23 whether or not the proposed activity could be considered  
24 to be inconsistent with the purposes for which the  
25 range was established or indeed in Canada, and one could  
26 ask would it be inconsistent with the purposes for  
27 which a range might be established that would be a  
28 complement to the one in Alaska.

29 Those purposes were for the  
30 purposes of preserving unique wildlife wilderness and



1 recreational values. Sir, to deal briefly with the  
2 last of these three, recreational values, that now seems  
3 to be limited pretty well to hunting, both commercial  
4 hunting and domestic-subsistence. I suppose particularly  
5 with respect to the commercial hunting, that could  
6 arguably be said to be inconsistent with the purpose of  
7 a range in itself.

8                               There is also some limited  
9 amount of hiking and canoeing and, of course, this  
10 area in the United States and the area being proposed  
11 in Canada are not very accessible. With respect to the  
12 protection of wildlife, the Arctic coastal plain, whether  
13 in Alaska or in Canada, is distinguished for two  
14 principal reasons. The traditional calving ground of  
15 the Porcupine caribou herd, an area along the coast  
16 of Alaska is known for its seasonal use by birds.

17                              Now, both these issues I'll  
18 deal with later in the submission. Our submission is  
19 that with respect to the protection of wildlife  
20 interests which are sought to be protected by a range,  
21 these can be protected if a pipeline is built across  
22 the range in Alaska or indeed any extension of it into  
23 Canada.

24                              Now, sir, with respect to the  
25 third of the matters which the designation of range  
26 seeks to protect, that is the protection of wilderness  
27 values in the range, the indication is the range is  
28 not entirely in a pristine state now, particularly along  
29 the coast. The coastal portion no longer has wilderness  
30 values, as that phrase is commonly understood. The



1 history of the economic and technological development  
2 of the Arctic coastal plain, the presence of the  
3 existing and abandoned DEW line sites, the village  
4 of Kaktovik, the air traffic associated with these  
5 facilities all belie this assertion.

6           The Arctic Gas project will,  
7 it is submitted, simply add to an already pronounced  
8 evidence of man on the Arctic coast. Even assuming,  
9 however, that the Arctic coastal plain could be  
10 considered to possess wilderness values to some and  
11 surely it does, the impact of the Arctic Gas project  
12 on those values would be negligible in light of the  
13 small amount of acreage that's associated with the  
14 project.

15           Within the range itself in  
16 Alaska, the project requirements would be for some  
17 five square miles out of a total of 14,000 square  
18 miles associated with the total range of which there  
19 are 4200 square miles on the coastal portion of the  
20 range. The pipeline would be buried and the ditchline  
21 revegetated so that the pipeline itself could not be  
22 said to detract--yes, sir?

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1 THE COMMISSIONER: Sorry,  
2 I just caught Judge Tallis walking by and I wanted  
3 to give him a message.

4 MR. MARSHALL: Did you want  
5 to break for a moment, sir?

6 THE COMMISSIONER: No, carry  
7 on.

8 MR. MARSHALL: Sir, I was  
9 dealing with the project that would require acreage  
10 and the extent that it would interfere with the wilder-  
11 ness values on the slope. The pipeline would be  
12 buried and the ditchline revegetated so that it is  
13 submitted the pipeline itself could not be said to  
14 detract from the coastal plains wilderness values.

15 In the future, a maximum of  
16 three compressor stations, about 50 miles apart, would  
17 be installed in the range, as necessary to assure  
18 full utilization of the line. But it is submitted  
19 those stations should no more materially detract from  
20 any wilderness values of the landscape than do the  
21 DEW Line stations presently both in Alaska and in  
22 Canada, the Village of Kaktovik in Alaska, and  
23 airstrips which are along the coast now.

24 In short, sir, it is  
25 submitted that opposition to crossing the range is  
26 not legally nor scientifically well-founded. Concern  
27 has been expressed for the aesthetic impact that would  
28 result if a pipeline were installed. This is a valid  
29 and legitimate concern and it would be shallow to  
30 say simply that few people will ever see it.









1 for this Inquiry to make are these:

2 . The evidence indicates that there is no legal  
3 reason why a gas pipeline should not be constructed  
4 across the range, and secondly,

5 . There is no scientific evidence that construction  
6 of a buried chilled gas pipeline across the range  
7 would lead to unacceptable environmental impact.

8 Now, sir, I would like to  
9 refer you to a matter that was put into evidence by  
10 Dr. Thompson. Dr. Thompson's evidence included an  
11 exhibit marked as 165 from the "U.B.C. Law Review",  
12 Volume 6, No. 1, supplement of June 1971, that dealt  
13 with the range. It contained the committee reports  
14 and the resolutions of the Arctic International  
15 Wildlife Range Conference.

16 I think it's noteworthy that  
17 in the committee report included in this document  
18 the following paragraph appears, described as item 4  
19 on page 75:

20 "Existing oil permits cover much of the area.  
21 Potential of discoveries exists. Apart from  
22 problems associated with developing a field,  
23 uncontrolled exploration for oil raises  
24 serious problems of potential ecological  
25 damage. Under proper controls, oil explora-  
26 tion and exploitation has been shown consistent  
27 with wildlife protection."

28 This was reflected in the various resolutions of the  
29 Arctic International Wildlife Range Conference.

30 The one that I wish to quote



1 is found on page 87 of that same reference I cited  
2 earlier:

3 "And whereas evolution of a mangement plan  
4 that would safeguard wildlife and environmental  
5 values without undue restrictions on industrial  
6 activity could serve as a model for resource  
7 allocation in other parts of Canada,"  
8 and so on.

9 I think it is clear, sir,  
10 that what's being proposed for the range in Canada  
11 is akin to the present situation with respect to the  
12 range in Alaska, and the range as it exists now in  
13 Alaska allows industrial activities specifically such  
14 as a pipeline, they may be permitted and it appears  
15 from the exhibit just referred to, Exhibit 165, that  
16 Dr. Thompson referred to in his evidence, that the  
17 situation proposed for Canada is somewhat similar.

18 Now, sir, the second major  
19 environmental issue on the North Slope is that of the  
20 Porcupine caribou herd, and the calving ground on the  
21 North Slope. This is dealt with in the written  
22 submissions commencing at page F-7. I would like  
23 to review that in some detail, if I may, in view of the  
24 very lengthy and detailed consideration that has been  
25 given to this subject in the written submissions that  
26 have been filed both by Commission Counsel and by a  
27 number of the other participants.

28 You've heard evidence from  
29 Mr. Jakimchuk that studies of the Porcupine herd were  
30 initiated by his firm in March of 1971 and have





1 continued since then. They have, I think it's well  
2 recognized, been one of the most extensive studies  
3 of caribou distribution ever carried out.

4 In addition to distribution  
5 studies, disturbance studies described by Mr. Jakim-  
6 chuk were also carried out. He presented very  
7 detailed evidence on the herd.

8 Now the major impact criterion  
9 that he developed and testified to was this, sir.

10 The ability of the herd to replace potential losses  
11 by annual recruitment. Of particular significance are  
12 Mr. Jakimchuk's comments on the factors that could  
13 change the total recruitment to the herd, namely:

- 14 (1) the depletion of range  
15 (2) direct killing by hunting and vehicles  
16 (3) harassment  
17 (4) interruption of traditional behaviour with secondary  
18 effects leading to mortality  
19 (5) interference with productivity, calving or calf  
20 survival.

21 He then went on to consider  
22 the ramifications of pipeline routing, construction and  
23 operation. I think, sir, these were the major concerns  
24 that were expressed with respect to the potential  
25 interaction of a pipeline on the caribou herd by the  
26 various and many witnesses that you heard from on this  
27 subject.

28 Now in Mr. Jakimchuk's evidence  
29 he testified firstly that the removal of range directly  
30 by a right-of-way is considered insignificant by all of



1 the assessments made.

2 Secondly, that direct killing by hunting is a  
3 function of access but a controllable variable through  
4 regulation, and if I may stop there, sir, there's been  
5 quite a bit of evidence about the control of firearms  
6 and I think there's a remarkable consistency in the  
7 recommendations on this point.

8 The lack of a permanent road along the North Slope  
9 is a significant mitigative factor with respect to  
10 access, and killing by collisions with vehicles during  
11 winter construction on the coastal route is considered  
12 by Mr. Jakimchuk as unlikely.

13 Specific protective guidelines  
14 based on research data have been established by  
15 Renewable Resources for Arctic Gas for protection of  
16 caribou against harassment, and those have been  
17 accepted by Arctic Gas.

18 With respect to interruption  
19 of traditional behaviour, Mr. Jakimchuk stated:

20 "Therefore I have concluded that the migratory  
21 periods are the most vital elements in the  
22 life cycle of barren ground caribou, the  
23 weakest link in the chain."

24 Construction of the pipeline along the coast would,  
25 of course, avoid interaction with the migratory periods.

26 Sir, with respect to inter-  
27 ference with productivity and this, it was argued by  
28 a number of witnesses, was the weakest link in the  
29 chain, studies of Renewable Resources have shown that  
30 the ~~peak~~ <sup>was</sup> of calving over a four-year period/between



1 June 5th to 7th. Post-calving aggregation which follows  
2 calving has occurred within a 10-day period over four  
3 years. Winter construction will preclude an interaction  
4 with calving.

5 The effect of a buried pipeline  
6 built in the area in winter would be a low mound of  
7 spoil material along a disturbed right-of-way. No  
8 activity would be under way during the calving period. The  
9 right-of-way would not form an impediment/movement,  
10 and in any event most migratory movements on the coast  
11 prior to calving is parallel to the right-of-way.

12 In time, caribou would encounter  
13 compressor stations. However, Renewable Resources  
14 studies have ascertained that the noise is an insignifi-  
15 cant disturbance to caribou and does not affect their  
16 behaviour or movements.

17 Dr. Geist, who was called by  
18 Canadian Arctic Resources Committee, gave considerable  
19 evidence about the well-known principle of ungulate  
20 adaptation to disturbance, disturbances which are  
21 continuous and not associated with a harmful experience.





At spacings of approximately fifty miles stations are not expected to have either short or long-term detrimental effects. Thus, calving could proceed uninterrupted by construction activity or aircraft flight. The post-calving aggregation generally occurs from July 3 to 10th. During that period, any activity would be limited to the compressor sites. The regulations regarding harrassment of caribou would be enforced. Indeed, sir, those regulations would be enforced at all times.

Enough is known of the post-calving aggregation period and its duration to prohibit any potential disturbing activity at that time in that area. By July 10th to 20th, most of the Porcupine herd have left the North Slope and are south of the sphere of influence of the pipeline. I think this evidence that I've just gone through, sir, does demonstrate that the times when these major activities that are so important to the caribou herd are occurring are pretty well known. They are pretty predictable. The record indicates that there's a remarkable correlation in the period from year to year. With the plan to have winter construction, these activities can be avoided.

Mr. Jackimchuk went on, sir, to deal with the major advantages and disadvantages of the coastal route insofar as caribou were concerned. Sir, those are listed on page F11 and you've heard them from Mr. Jackimchuk in evidence and I won't go through them once again.





1 He concluded his analysis of the  
2 impact of the pipeline on the herd by stating:

3 "It is in fact my expectation that actual losses  
4 or effects attributable to the pipeline, both  
5 short and long-term, will be negligible".

6 Sir, you have heard virtually  
7 endless evidence on caribou and it would not be of  
8 assistance to review it all in detail. It is submitted,  
9 however, that none of the evidence contradicts Mr.  
10 Jackimchuk's conclusion that actual losses or effects  
11 attributable to the pipeline, both short and long-term,  
12 will be negligible.

13 I think, sir, that Dr.  
14 Calef in his report reached essentially that same  
15 conclusion. In the E. P. B.'s Environment Impact  
16 Assessment, Volume 4, Chapter 5, authored by Dr. Calef  
17 entitled "The Predicted Effect of the Arctic Gas  
18 Project on the Porcupine Caribou Herd". Dr. Calef  
19 says at the end of Section 4:

20 "If the recommendations listed below are established  
21 and enforced, no decline in the Porcupine caribou  
22 herd is expected".

23 I might pause there, sir. He  
24 is there speaking about either route. He says:

25 "If the recommendations listed below are established  
26 and enforced, no decline in the Porcupine caribou  
27 herd is expected. If enforcement is not possible,  
28 the herd could decline as much as ninety percent  
29 in five to ten years".

30 He went on over the next page,



1 118, to deal with the summary of his recommendations.  
2 Now those, sir, I don't want to go through them in  
3 detail but it's submitted that those recommendations  
4 for mitigative measures have been met or exceeded by the  
5 mitigative measures recommended by Mr. Jackimchuk and  
6 adopted by Arctic Gas.

7 To cite one example, Dr.  
8 Calef suggested aircraft should observe a minimum of  
9 500 feet altitude, preferably 1,000 feet. Of course,  
10 Arctic Gas has gone to an altitude of 2,000 feet. I  
11 might also add, sir, that Dr. Lent's film of caribou  
12 at Prudhoe Bay did as much as anything to dispel  
13 the misconception about the sensitive nature of caribou.  
14 It appeared from my viewing of that film that the  
15 caribou wandered without concern through the Prudhoe  
16 Bay area which was one of as the film depicted very intense  
17 industrial activity.

18 It is my submission, sir, that  
19 the concern of other caribou experts related more to  
20 future developments along the North Slope and in the  
21 Beaufort Sea. Dr. Weedon made this clear, and I submit  
22 so did Dr. Bergerud. He said this, sir:

23 "Mr. Jackimchuk and his colleagues have gathered  
24 comprehensive data on the movements and dis-  
25 tribution of the Porcupine herd, and also on its  
26 reaction to certain disturbances. I agree with  
27 Mr. Jackimchuk's conclusions that the Porcupine  
28 herd can withstand a short-term influence of a  
29 buried pipeline along the coastal route. I  
30 disagree with his view of the long-term effects



1 because further developments will follow the  
2 initial route chosen. These impacts cannot be  
3 dismissed as he has without comment".

4 Now, sir, that assumption as  
5 to further developments is, it is submitted, scenario  
6 writing and Mr. Genest has dealt with it in his remarks  
7 and we have dealt with it in the written submissions  
8 under the section on the corridor concept. Future  
9 developments, particularly of an oil pipeline along  
10 the North Slope, and that seems to be the major concern  
11 of the caribou biologists, an oil pipeline accompanied  
12 by an all-weather road that would give access to hunters.

13 Future development of an oil  
14 pipeline need not follow. Indeed Mr. Scott has  
15 recommended as follows:

16 "If a permit were to be granted for a trunk gas  
17 pipeline from Alaska across the Mackenzie Delta,  
18 the Government of Canada should indicate in  
19 unequivocal terms that approval of a gas pipeline  
20 does not constitute approval of an energy trans-  
21 portation corridor across the delta, and it is  
22 not to be taken as a precedence for routing a  
23 trunk oil pipeline across the delta".

24 Sir, Mr. Scott was there dealing  
25 specifically with the delta portion of the North Slope  
26 but he submitted this argument can be applied with equal  
27 force to the whole of the North Slope. Sir, the third  
28 major reason advanced in opposition to the prime route  
29 across the North Slope is its location through the  
30 fall staging grounds of the snow geese.





1                               The coastal plain is used by  
2     staging snow geese prior to the autumn migration for a  
3     period of about six weeks within the interval from 15th  
4     of August to 15th of October. Incidentally, sir, I was  
5     in touch with L. G. L. recently and they've told me  
6     that the results of this year's survey indicate that  
7     the snow geese left the North Slope in Alaska on the  
8     20th of September and they left the North Slope in the  
9     Yukon by the 25th of September and the small numbers  
10    that were in the delta this year left by the 30th of  
11    September.

12                            But during this period of  
13    time, this six week period, construction activities  
14    would be minimal and would be restricted to staging  
15    sites, future compressor stations and their support  
16    facilities. With appropriate aircraft regulation,  
17    the effects of these limited activities would be, it  
18    is submitted, within acceptable limits. Concern has  
19    been expressed that the birds may be subject to  
20    disturbance by aircraft during the operational stage  
21    of the pipeline.

22                            However, given the constraints  
23    incorporated into the operating plan where a number  
24    of patrol flights--where the number of patrol flights  
25    are kept to a minimum during critical periods and other  
26    flights observe a minimum of altitude of at least  
27    2,000 feet above ground level, and adopt flight plans  
28    avoiding the staging areas where possible, again the  
29    impact on the geese would, as submitted, be within  
30    acceptable limits.



1                   This type of disturbance has  
2 not been without precedence on the North Slope. It has  
3 been noted that during the early days of DEW line  
4 construction or operation between 1955 and '59 there  
5 were about ten flights per day in and out of DEW line  
6 stations. During these operations, there was little  
7 or no control of air traffic with regard to environ-  
8 mental concerns.

9                   Furthermore, snow geese have  
10 shown remarkable resiliency in rebounding from natural  
11 population declines, primarily due to nesting failures.  
12 Now, the evidence indicated, sir, that the 1974  
13 population was about 160,000. In 1975, the population  
14 was back to near normal at 325,000; and the information  
15 from Dr. Gunn is that the preliminary results of the  
16 1976 snow goose surveys indicate a rather dramatic  
17 increase in this population.

18                   The figure that he's given  
19 to me, sir, is that--that they're using on a preliminary  
20 basis is 500,000. Mr. Hemstock has put together a  
21 table which shows the autumn staging snow geese,  
22 Mackenzie Delta and North Slope for the years 1972, '73,  
23 '74, '75 and '76. I would like to leave this with  
24 you, sir. This is simply a representation of the  
25 evidence that Dr. Gunn gave together with the indication  
26 of this year's results.

27                   It indicates for the 1972 year  
28 there were 200 to 300,000. For 1973, the numbers went  
29 up to 400,000 and they dropped in 1974 to 163,000.  
30 That, I'm told by Mr. Fiedler is because that was the



1 year that Arctic Gas filed its application. In 1975,  
2 the numbers increased to 375,000 and now that your  
3 Inquiry is drawing to a close, sir, the numbers are  
4 now estimated preliminarily to be about 500,000.

5 The snow geese seem to have  
6 been able to survive the impact of the Inquiry at least.

7 THE COMMISSIONER: They've  
8 responded positively to the Inquiry.

9 MR. MARSHALL: They seem to,  
10 yes.



1 MR. MARSHALL: Now, sir,  
2 this, it is submitted, is a most convincing demonstra-  
3 tion that if, for whatever reason, a population of  
4 snow geese suffers temporary decline, as it appeared  
5 to in the year 1974, it seems to have the ability to  
6 restore itself.

7 Further, it must be remembered  
8 that the snow geese population is harvested yearly, not  
9 only by the natives but to an even greater extent by  
10 hunters in Southern Canada and United States. The  
11 population has been able to withstand the very substan-  
12 tial annual harvest and if for any reason the population  
13 were to suffer a decline, steps could be taken to restrict  
14 hunting by southerners.

15 Sir, in consideration of  
16 major construction taking place in the winter along  
17 the North Slope, altitude and flight path restrictions,  
18 restricted nature of working areas in summer, restric-  
19 tion of all but emergency activities on the tundra in  
20 the summer, curtailment of flights during critical  
21 periods to a predetermined maximum, Dr. Gunn stated:

22 "We believe that the coastal route could be  
23 built without major damage to bird populations  
24 provided our recommendations are carried out."

25 Dr. Gunn's evidence with  
26 regard to this matter has not, it is submitted, been  
27 challenged either in cross-examination or through  
28 evidence of other witnesses. Indeed, Dr. Gunn's evidence  
29 pertaining to birds has received almost universal con-  
30 dorsement.





1                    Provided, sir, that the  
2 recommended mitigative measures are implemented,  
3 and Arctic Gas is prepared to implement these and has  
4 so indicated, it is submitted that there is no evidence  
5 that construction along the prime coastal route would  
6 have an unacceptable impact on birds and we would  
7 ask that the Inquiry so find.

8                    Sir, there are two other  
9 short matters that I'd like to deal with that pertain  
10 specifically to the North Slope, and then I understand  
11 that coffee is ready. I'll just be a moment or two.

12                   These were two matters that  
13 were raised by Mr. Scott and they are raptors and the  
14 fish overwintering areas.

15                   With respect to raptors, it is  
16 noteworthy that raptor concerns are site-specific and  
17 usually identifiable. Arctic Gas has devoted and will  
18 continue to devote considerable effort to identifying  
19 these locations. This is work that has been done and  
20 will continue to be done in co-operation with the  
21 Canadian Wildlife Service.

22                   Mitigative measures consistent  
23 with those suggested by the Canadian Wildlife Service  
24 have been adopted by Arctic Gas.

25                   With respect to fish  
26 overwintering areas, once again enormous effort has  
27 been devoted to the location of fish overwintering and  
28 spawning areas on the North Slope in both Alaska and  
29 Canada. We are convinced that with the data collected  
30 by Dr. McCart and those generated by various government



1 agencies, that most such areas likely to be affected  
2 by the construction and operation of a gas pipeline  
3 have already been identified. With the further work  
4 that is anticipated during the final design stage,  
5 it is unlikely that any area harboring a significant  
6 portion of a population will remain unidentified.  
7 Once identified they will be avoided; or if this is  
8 not possible, stringent mitigative measures will be  
9 implemented to ensure the effects are minimal.

10 Mr. Commissioner, the various  
11 environmental concerns relative to the North Slope  
12 have, I think, been considered and it is submitted  
13 that there is no convincing scientific evidence that  
14 Arctic Gas has not identified the impacts, that they  
15 don't know how to handle those impacts, or that they  
16 cannot be kept within acceptable limits.

17 Indeed, it is submitted that  
18 the evidence is very much to the contrary. The  
19 Wildlife Range as proposed is not seen as excluding  
20 all industrial activity. The pipeline itself will  
21 clearly not seriously affect the Porcupine caribou  
22 herd provided it is built as planned in winter.  
23 Dr. Gunn's uncontradicted opinion is that the impact  
24 on birds will be within acceptable limits, particularly  
25 as staging snow geese will begin before winter con-  
26 struction gets under way.

27 The right-of-way can be  
28 revegetated, impacts on fish will be within acceptable  
29 limits, and we have Dr. McCart's evidence on that and  
30 he is generally supported by Dr. Wilomovsky.



1 Further, socio-economic  
2 impacts will, as Mr. Veale indicates in his written  
3 submission, be much less along the coast than for  
4 any other route through the Yukon. What then can  
5 support a finding, as has been urged on you, that  
6 the North Slope is an inappropriate location for  
7 a gas pipeline?

8 Sir, it is submitted that  
9 nothing can. Arctic Gas has, it is submitted,  
10 adequately discharged its burden of proof and has  
11 established a prima facie case. The recent scientific  
12 assessment put forward by the witnesses hasn't been  
13 successfully challenged by Commission Counsel, Foot-  
14 hills or the other participants.

15 A gut feeling on the part  
16 of some that they don't want a pipeline built there is,  
17 it is submitted, not enough. That is, as I indicated  
18 earlier, purely a matter of aesthetics and is not  
19 capable of scientific quantification. The resolution  
20 of that issue can only be brought about politically,  
21 and it is submitted that the Inquiry's responsibility  
22 is to make findings of impacts based upon the scien-  
23 tific evidence.

24 Sir, those are my submissions  
25 with respect to the North Slope, and it's convenient  
26 to break now. I'll continue with a discussion of the  
27 delta after coffee.

28 THE COMMISSIONER: Right. Well,  
29 we'll take a break for coffee then.

30 (PROCEEDINGS ADJOURNED FOR A FEW MINUTES)





(PROCEEDINGS RESUMED PURSUANT TO ADJOURNMENT)

THE COMMISSIONER: Well, shall we come to order, and Mr. Marshall will continue with his submission.

MR. MARSHALL: Thank you, sir. Mr. Commissioner, we have presented our assessment of the cross-delta route, together with that of the circum-delta route, as found at the section beginning at page F-16 in the written submission.

We've done this, sir, as we consider them as alternatives both of which are acceptable to Arctic Gas, although it has a clear preference for the cross-delta route.

Sir, in consideration of the relative advantages or disadvantages of these two route alternatives requires an analysis of a number of factors, which I've listed on page 16, and I'd like to deal briefly with the various factors and in some detail with the environmental ones.

The first of those is location, and the locational differences are, I think, apparent from the maps that have been submitted and that requires no elaboration. With respect to design, design would differ materially because of the shorter length of the cross-delta, in the dualling of Shallow Bay and the major channels in the Mackenzie River with 36-inch lines, and a reduction in the number of compressor stations.

Geotechnically the two routes



1 present very different geotechnical problems. Frost  
2 heave is the first of these. There is more frost  
3 susceptible soil in the delta channel crossing than  
4 in the river crossings of the circum-delta route.  
5 Seismic considerations are about the same. Slope  
6 stability is much more of a concern on the circum-  
7 delta route than the cross-delta route. Borrow  
8 requirements are similar for both routes. The cross-  
9 delta route requires fewer pits.

10 Geotechnically it is felt by  
11 Arctic Gas that there is little to choose between these  
12 routes.

13 The next matter that must be  
14 considered is construction. Construction of the cross-  
15 delta route would result in a total reduction of 95  
16 miles of pipe to be installed. There would be summer  
17 construction at Shallow Bay and the major channel  
18 crossings, and this would allow for reduction in the  
19 spreads from 5 to 3, required in the final winter  
20 of construction in Canada on the Prudhoe Bay leg.

21 During the same winter, three  
22 spreads would be working in Alaska. The reduction in  
23 spread requirements in Canada for that construction  
24 season would be an advantage as it would make available  
25 an additional spread on the North Slope in the event  
26 that was deemed advisable, and this is a subject I'll  
27 address in more detail later.

28 With respect to operations  
29 and maintenance, there would be advantages in the  
30 reduction in the overall number of miles and the



1 reduction of some compressor stations.

2 With respect to cost, the  
3 evidence is that the cross-delta route would yield  
4 a capital cost saving estimated at \$150 million.

5 With respect to environmental  
6 matters, sir, I'd like to deal with each of the areas  
7 as they've been addressed in the evidence. Firstly,  
8 vegetation. Revegetation would be easier on the cross-  
9 delta route because the delta soils are rich in  
10 nutrients, there would be rapid recovery of plants  
11 which had been disturbed. Also the shorter new  
12 route would disturb less area. So in the area of  
13 vegetation there seems to be quite an advantage to  
14 the cross-delta route.

15 With respect to birds,  
16 Dr. Gunn's assessment was that from the point of view  
17 of birds that would be affected, the circum-delta  
18 route is preferable to the cross-delta. The large  
19 numbers of geese that in some years stage in the  
20 outer Mackenzie Delta would be vulnerable to the  
21 disturbance associated with summer construction of the  
22 Shallow Bay crossing. Because of Dr. Gunn's concern  
23 a decision was reached to relocate compressor station  
24 CD-08 to Tununuk Junction, which Dr. Gunn considered  
25 an improvement over the previous location. With this  
26 relocation, Dr. Gunn found the cross-delta route to be  
27 acceptable ornithologically and I might add that that  
28 opinion has not been contradicted.

29 There are a number of other  
30 matters relative to birds that were dealt with in the





1 evidence. The evidence is that they stage in the  
2 delta in some years in numbers, but not in all. The  
3 example that was referred to in the testimony of Dr.  
4 Gunn was 1975 when they were there in the delta in  
5 numbers apparently because of early snowfall on the  
6 North Slope, which closed that area to them, and so  
7 the geese staged in large numbers in the delta  
8 itself. But that isn't always the pattern, and this  
9 year, I understand from discussions with L.G.L., was  
10 not a year in which large numbers of geese staged in  
11 the delta. They staged on the North Slope.

12 The staging really occupies  
13 a period of only about six weeks. Dr. Gunn has, of  
14 course, testified as to rather stringent mitigative  
15 measures that he has recommended, and Arctic Gas has  
16 accepted those recommendations and is prepared to shut  
17 down if its activities create the risk of unacceptable  
18 impacts on staging snow geese.

19 Now, with respect to fish.  
20 Dr. McCart's evidence was that it was not possible  
21 to distinguish between the two routes as they both  
22 had advantages and disadvantages which balanced each  
23 other out. Beyond that he has recommended a number of  
24 mitigative measures which he testified to in the  
25 proceedings. Arctic Gas has accepted those recommenda-  
26 tions. Dr. McCart's testimony was that with the  
27 implementation of those safeguards the impact on fish  
28 would be within acceptable limits, and it is submitted  
29 that Dr. McCart's opinion on that subject has not been  
30 challenged.





1 With respect to terrestrial  
2 mammals , Mr. Jakimchuk's opinion as expressed in  
3 Exhibit 452 was,

4 "Overall, particularly in view of its shorter  
5 length, the cross-delta route is preferred to  
6 the original prime route with respect to  
7 terrestrial and aquatic mammals."

8 I think, sir, during the  
9 course of his cross-examination he agreed with Mr.  
10 Scott that there was probably little to choose as  
11 between the two routes.

12 With respect to whales, Mr.  
13 Webb's testimony, which was based on four years of  
14 intensive work on whales in this area by Slaney,  
15 which work was described by Dr. Sergeant as being  
16 very excellent, and further, Dr. Sergeant acknowledged  
17 that Slaney had done much more intensive work than  
18 had the Canadian Government in this area. Mr. Webb  
19 raised two concerns:

- 20 (1) was the interference with whaling opportunities,  
21 (2) was the biological consequences from disturbance  
22 or harassment.

23 Firstly, to deal with inter-  
24 ference with the whaling opportunity. This was Mr.  
25 Webb's evidence.

26 "As a result of my review of Arctic Gas material  
27 I believe that construction, operation and  
28 abandonment of the Shallow Bay crossing can  
29 take place without significant effect upon  
30 the whaling opportunity. Our studies have



1 indicated that most of the 25 to 30 whales  
2 usually taken by hunters in this area are  
3 killed in Shoalwater Bay and West Mackenzie  
4 Bay and not within the area designated as  
5 Shallow Bay. The majority of this harvest  
6 is taken over five miles from the planned  
7 crossing."

8 I think, sir, on the basis  
9 of that evidence there is no cause for concern  
10 that the construction and operation of a pipeline  
11 along the Shallow Bay route would interfere with the  
12 whaling opportunity.

13 Secondly, with respect to  
14 disturbance to whales, and the biological consequences  
15 of such disturbance. The evidence, which is largely  
16 that of Mr. Webb, clearly establishes that a crossing  
17 of Shallow Bay can be constructed without adverse  
18 impact to beluga whales. Each year up to an estimated  
19 5,000 beluga whales visit Shallow Bay beginning around  
20 the middle to the end of June. However, their visit is  
21 restricted to a relatively short period, which is  
22 ended on the following dates in the course of the last  
23 four years -- 1972 it was July 15th; July 6th the next  
24 year; July 22nd in '74, and in 1975 it was July 28th.

25 The area within Shallow Bay  
26 where the whales concentrate is north of the proposed  
27 pipeline crossing. However, in certain years they have  
28 penetrated south of the crossing.

29 Sir, perhaps so it will be  
30 fresher in your mind and those of other counsel, we



1 have a table from one of the exhibits, Slaney's  
2 Report on the -- it's entitled:

3 "Map 5, Ice and Beluga Whale Distribution,"  
4 and it shows the area of concentration. I've had  
5 Arctic Gas draw in the proposed cross-delta alignment  
6 just so that you can see where there may be an inter-  
7 action; and also I've had them put in an outline of  
8 Dr. Sergeant's proposed whale sanctuary area.





Sir, there is no clear evidence that calving takes place in Shallow Bay, but rather it is an inference, as Dr. Sergeant has indicated. However, calving does appear to occur in west Mackenzie Bay according to Webb. The disturbance studies conducted by Slaney & Company on beluga whales in Shallow Bay for Imperial Oil which were submitted as Exhibits 431 and 432, and Slaney's summer environmental program in Mackenzie River Estuary, Volume 2, White Whale Studies, March of '76, demonstrated that activities such as artificial island construction, barge activity and dredging have not adversely affected the whales.

In fact, the whales have shown the ability to accommodate such disturbance. It is submitted that there is no evidence that similar activities associated with a pipeline crossing of Shallow Bay would cause a detrimental impact to the whales. Notwithstanding the conclusion that Mr. Webb reached as to the very limited impact there might be on whales by the proposed crossing he went on to spell out a number of mitigative measures or recommendations which were discussed in the transcript at 20157. Those recommendations are acceptable to Arctic Gas and I will perhaps just detail them now.

Firstly, the construction activity takes place after the majority of the whales are observed to have left the area. Second, that supervisory monitoring surveys be undertaken of both whale distribution and hunter harvest success. Three, that boat traffic, particularly barges hauling gravel



1 from Shingle Point occur after August 1st, or that  
2 aircraft overflights of west Mackenzie Bay at low levels  
3 be avoided in late June and the month of July. Five,  
4 that aircraft and boat landings at whale camps be kept  
5 to a minimum.

6 Furthermore, if during the  
7 monitoring surveys it appears that the pipeline  
8 activities are threatening the well-being of the whales,  
9 such activities will be ceased until the whales have  
10 left the area. Sir, concerned with respect to the  
11 potential impact for a crossing of Shallow Bay on whale  
12 populations was also expressed by Dr. Sergeant  
13 It's submitted, however, that the thrust of his evidence  
14 related to the cumulative impact of fairly large  
15 scale activities in the Beaufort Sea, not simply to the  
16 probable impact of a pipeline crossing of Shallow Bay.  
17 It is submitted that the evidence before the Inquiry  
18 does not support a finding that the proposed crossing  
19 of Shallow Bay would cause unacceptable environmental  
20 impacts.

21 You'll note, sir, from the  
22 map that I've given to you that the area that Dr. Sergeant  
23 proposes for inclusion in the sanctuary includes much  
24 of the west Mackenzie Bay area and it does go down into  
25 Shallow Bay some distance and the pipeline would cross  
26 near the bottom part of that triangle. So, the  
27 proposed crossing would be within part of the area  
28 that Dr. Sergeant is proposing, but south of the main  
29 part of it.

30 Sir, the Arctic Gas witnesses



1 also dealt with a number of general environmental  
2 considerations relating to whether it was better to go  
3 around the delta or across the delta. Specifically it  
4 was Dr. Banfield's evidence on the subject and that of  
5 Mr. Hemstock. I have set out in the written submissions  
6 at pages F22 and F23 the central points that were raised  
7 by those two witnesses in reaching the conclusion that  
8 in their opinion it would be preferable to go across  
9 the delta, rather than to go around it.

10 There was one other point that  
11 I might add at this time and Mr. Jackimchuk made the  
12 general comment in cross-examination that with respect  
13 to disturbances to deltas, that there were advantages  
14 to having the disturbance further out, rather than  
15 towards the head of the delta for the obvious reason  
16 that the further out the disturbance was, the smaller  
17 the downstream area that might be affected by it, and  
18 he advanced that as a general proposition.

19 THE COMMISSIONER: Excuse me.  
20 Do you want to repeat that?

21 MR. MARSHALL: His general  
22 proposition was that if there's to be a development  
23 in the vicinity of a delta, that it made more sense  
24 to try to go near the downstream end of the delta  
25 rather than near the upstream end. To take an example,  
26 if there were to be a concern with sedimentation say as  
27 a result of slope failures around the circum-delta  
28 route, the area potentially to be affected by the silt  
29 carried downstream would go through the whole of the  
30 fan of the delta; whereas if the activity of the pipeline





1 in this case were to be in the outer fringes of the  
2 delta, and there were a sediment load added to the channels  
3 of the delta, the areas affected would only be the outer  
4 fringe.

5 THE COMMISSIONER: The same  
6 reasoning would apply to an oil spill?

7 MR. MARSHALL: Yes. It is  
8 submitted that in total the environmental evidence  
9 ought to lead to a finding that the cross-delta route  
10 is acceptable provided, of course, that appropriate  
11 mitigative measures as recommended by Dr. Gunn and  
12 Mr. Webb are implemented and enforced. Another factor,  
13 sir, that should be taken into account in considering  
14 the relative merits of various routing alternatives  
15 is the socio-economic one. Sir, there is little  
16 specific evidence on the relative advantages or dis-  
17 advantages of the two routings, in this case the  
18 cross-delta and the circum-delta. The cross-delta  
19 would see the pipeline located further from the  
20 communities of Aklavik, Fort McPherson, and Arctic  
21 Red River.

22 Insofar as the small communities  
23 have in general expressed a preference for separation  
24 of any pipeline activities from their communities, this  
25 might be considered to be an advantage in favor of the  
26 cross-delta route. On the other hand, to the extent  
27 that there are those in the communities who would wish  
28 to participate in pipeline related activities, the  
29 removal of the pipeline from proximity to those three  
30 communities might be a marginal disadvantage. With





1 respect to hunting and trapping, sir, I have had Arctic  
2 Gas put together a composite map based on exhibits  
3 submitted by COPE, I. T. C. and the Indian Brotherhood.  
4 You'll recall there was some discussion in cross-  
5 examination of the Arctic Gas cross-delta environmental  
6 panel by Mr. Scott challenging an assertion that a  
7 cross-delta routing would avoid traditional hunting  
8 and trapping areas used by people in the communities  
9 of Aklavik, Fort McPherson, Arctic Red River and Inuvik.

10 What I've had Arctic Gas do  
11 is take the COPE, I. T. C. land use maps which were  
12 presented as exhibits before the Inquiry, Exhibits  
13 C-241 to 243 and 249, I understand that they were; and  
14 the Indian Brotherhood's land use map which was  
15 Exhibit 604, and do overlays superimposing the traplines  
16 and in the case of the Brotherhood map, also the travel  
17 routes. Superimposing that on a map showing the  
18 pipeline alignment in the vicinity of the delta.

19 Because of the nature of the  
20 document produced, I wasn't able to have it reproduced,  
21 perhaps it could be put on the wall and I have some  
22 remarks concerning it.

23 THE COMMISSIONER: You can put  
24 it up later and we can take a look at it, unless you  
25 want to discuss it now.

26 MR. MARSHALL: Perhaps I can  
27 just leave it with you and you can put it up. Sir,  
28 that--

29 THE COMMISSIONER: It's upside  
30 down. No wonder it didn't look right.



1 MR. MARSHALL: That map shows  
2 the circum-delta route and the cross-delta route and  
3 then superimposed are plastic overlays. The red lines  
4 indicate the traplines and the travel routes as set  
5 forth in the Brotherhood's land use maps. The black  
6 lines indicate not travel routes but only hunting and  
7 trapline areas and my understanding is that that  
8 contains the information that was presented in the maps  
9 for the communities of Inuvik and Aklavik for the Inuit.

10 It doesn't show the travel  
11 routes and were they on there there would be many more  
12 black lines. Nor does it show land use by the people  
13 of Tuktoyaktuk. I've reviewed the map with Mr. Bayly  
14 and he's pointed that out to me that Tuk people would  
15 use a number of those areas and neither their  
16 trapping nor their travel routes are shown there.

17 We hadn't done that, not  
18 because we wanted to exclude it, but simply because  
19 we were wanting to respond to a point raised by Mr.  
20 Scott on his cross-examination about whether or not the  
21 cross-delta route did have the advantage of avoiding  
22 traditional hunting and trapping areas used by people  
23 in the communities of Aklavik, Arctic Red River, Fort  
24 McPherson and Inuvik. It's submitted, sir, that that  
25 map does show quite graphically that the areas of  
26 major concentration of such activities are close to  
27 those communities and the cross-delta route does skirt  
28 those areas and in that sense, it is submitted that  
29 there is an advantage to the cross-delta route as  
30 opposed to the cross-delta, and as opposed to the circum-



1 delta. You would want, I think sir, to look at well at  
2 the maps submitted relating to Tuktoyaktuk as the  
3 people in that community do hunt and trap along the  
4 coast.

5 In summary, sir, in having  
6 regard to all of the aspects that it is submitted must  
7 be taken into account, it is our position that a cross-  
8 delta route emerges as the preferable one. The  
9 environmental evidence is that there is no great  
10 difference between the two routes and that the cross-  
11 delta route can be constructed and operated without  
12 serious environmental impact.

13 Now, sir, this recent scientific  
14 evidence has not been challenged at the hearings where  
15 the opposition to crossing the delta remains. It  
16 appears to us to be based on a concern generally for the  
17 delta as a unique road in this area.

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No one disputes the uniqueness of the Mackenzie Delta, and it obviously has to be treated with great care. To us that does not mean that no development can or should ever take place within the delta. Rather, it means that development should be carefully examined and closely monitored to ensure its impact would be within acceptable limits. That, sir, is exactly what we propose.

Clearly the delta is not now a complete wilderness, but with human settlements, seismic activity, fishing, oil and gas exploration, barge and air traffic, etc. If Arctic Gas goes through this area as proposed very carefully and closely monitored and controlled, the impacts can, it is submitted, be kept within acceptable limits.

If Arctic Gas does not proceed via this route, we will in all likelihood see development in the delta anyway either by the government or others. This will take place piecemeal with no monitoring, no comprehensive control, and no basis upon which to assess the impact of future developments.

Sir, finally in connection with matters of routing there was reference in Commission Counsel's submissions to the so-called Barry route, and I have just a brief comment on that. It is submitted that the Barry alternative, if indeed it can be said to have such status, since it is only a line on the map and in fact I think there were two lines on the maps by the time we were through with it,



1 it was only a line on a map and there have been no  
2 specific engineering or environmental studies of it,  
3 and it does not in the evidence demonstrate any  
4 material environmental advantages as would warrant  
5 additional detailed study.

6 Mr. Hemstock was asked to  
7 comment on it, and did at Volume 130 of the transcript.  
8 He outlined his reasons why he felt the cross-delta  
9 was preferable to the Barry route. These included  
10 additional length of line and added cost. Among the  
11 environmental considerations he considered the cross-  
12 delta preferable from a revegetation and restoration  
13 standpoint. From a mammal standpoint, the cross-delta  
14 route crossed less important muskrat habitat.

15 Other impacts on mammals would  
16 be generally similar except for belugas, and there would  
17 be an advantage for belugas, although it's Arctic Gas'  
18 position that the impact of the route as proposed on  
19 belugas would not be a significant one.

20 With respect to fish there  
21 seemed to be very little difference, and the probable  
22 disturbance to waterfowl was evaluated by Mr. Hemstock  
23 as being roughly equivalent.

24 Sir, those complete the  
25 submissions with respect to the matters concerning  
26 location.

27 I'd like to turn now to  
28 consideration of three geotechnical subjects, and  
29 I'll do so just very briefly.

30 Mr. Scott has recommended



1 that all pipeline crossings be designed to withstand  
2 standard project flood conditions. This recommendation,  
3 sir, we find not to be acceptable. Firstly, we  
4 consider that the application of the standard project  
5 flood to design of pipeline crossings is not an inten-  
6 ded use by the developers of the concept. It was  
7 used by Alyeska but we don't consider that to be a  
8 sufficient precedent for its use by Arctic Gas. We  
9 feel that its use may be unduly conservative.

10 Since it is estimated that  
11 by combining rarely occurring phenomena, a standard  
12 project flood is an extremely rare event with a  
13 return period which is impossible to define but  
14 easily of the order of one million years. We think  
15 that if that criteria were enforced on the pipeline  
16 that it would be unduly conservative and would result  
17 in very considerable additional cost and it may  
18 provide no environmental advantages. Indeed, it may  
19 entail more environmental disruption.

20 It's our submission that the  
21 Inquiry should find that the approach used by Arctic  
22 Gas involving a ranking of environmental concerns  
23 for various classes of hydraulic structures, combined  
24 with flood frequency data, is the sound approach and  
25 that's the approach that ought to be taken.

26 Sir, there are more detailed  
27 submissions on this subject and they're dealt with at  
28 pages B-18 to B-20 in the written submission.

29 The second of the geotechnical  
30 subjects I wish to address is that of interaction of





1 subsurface flow. There was, as you will recall, sir,  
2 a considerable discussion about the possibility of  
3 a buried chilled pipeline cutting off the flow of  
4 underground water to overwintering areas for fish  
5 in the North Slope, and Dr. McCart talked about a  
6 number of possible locations. Fish Creek, the Firth  
7 River, are two locations. The Babbage River and the  
8 Malcolm River. Well, since then Northern Engineering  
9 has carried out further work on the North Slope.  
10 The results of this work are in press, a report  
11 done by Mr. Henderson of Northern Engineering entitled:

12 "1976 Geophysical Survey of Rivers of the  
13 Arctic Coastal Plain in the Yukon Territory."

14 Now what they found is that as a result of this work  
15 in none of these locations with the possible exception  
16 of the Babbage River, which was not investigated,  
17 is there geophysical evidence of subsurface flow in  
18 the upper 30 feet of the river bed. In other words,  
19 whatever the source of water for these overwintering  
20 areas, it is not a near surface flow that would be  
21 affected by a pipeline.

22 As I say, there is still one  
23 location that has not been investigated but it would  
24 appear on the basis of this recent work that the  
25 concern that was identified is not going to be  
26 realized once construction gets under way.

27 Finally, sir, in the  
28 geotechnical area, Mr. Scott had a number of recommen-  
29 dations on the last point of cold flow. They appear  
30 to us to say that the location of the last point of cold





1 flow should be selected as far south as you would  
2 ever want to go, being pessimistic about thaw settle-  
3 ment problems, and then have enough flexibility in  
4 the compressor stations to move the last point of  
5 cold flow north if operating a pipeline proved  
6 difficult.

7 Sir, that recommendation  
8 gives us a lot of concern. We don't think that it is  
9 sound engineeringly. We think the proper approach is  
10 for Arctic Gas to complete its investigations and  
11 make a decision as to where the last point of cold  
12 flow should be. It's a matter of final design. It  
13 would undoubtedly be something that would be looked  
14 at carefully by the regulatory agency, and that the  
15 pipeline ought to be designed accordingly, rather  
16 than designing the pipeline to flow both hot and  
17 cold over an extended area. There is very considerable  
18 expense involved in what would turn out to be a needless  
19 duplication of facilities, heating equipment and  
20 chilling equipment and so on over that period, and we  
21 think the better approach is to do the additional  
22 work that's required, make a decision as to what the  
23 optimum point is, and of course that would be subject  
24 to confirmation by the authority, and then design and  
25 build accordingly.

26 Sir, the next area I would  
27 like to deal with is that of construction. The major  
28 issue related to the Arctic Gas construction plan is  
29 the feasibility of its schedule for the North Slope  
30 construction in the third winter of pipelaying. I have



1 dealt with this topic in some detail in the section  
2 (c) of the written submissions, and I'd like to go  
3 through aspects of that now with you, sir.

4 The attack on this schedule  
5 which was led by my friend, Mr. Gibbs, centred on two  
6 issues.

7 (1) was the time available for completion of the work,  
8 and (2) the ability of men and equipment to work under  
9 the anticipated climatic conditions.

10 As to the first point, sir,  
11 the time available, it requires a consideration of the  
12 startup date, shutdown date, and the Christmas break.

13 With respect to the startup  
14 date, you heard endless debate as to the number of  
15 freezing days that would be required, or the extent of  
16 frost penetration, the position of Arctic Gas being  
17 set forward in Mr. Dau's evidence that snow road  
18 construction could get under way once 330 freezing  
19 degree days had been accumulated, and that after 550  
20 freezing degree days, heavy utilization of snow roads  
21 could begin.

22 There was considerable debate  
23 with Mr. Jarvis, a Foothills witness, about this  
24 subject. I think, sir, the essential point that I  
25 attempted to make in the written submissions, beginning  
26 at page C-1 and running through C-3, was this. The  
27 criteria that have been selected by Arctic Gas or by  
28 Foothills will undoubtedly be of considerable use in  
29 planning and being ready to start once they're allowed  
30 to get onto the land. The decision as to when they're



1 going to be allowed to get on the land is going to  
2 be up to the land use authorities who will study the  
3 situation and determine that it's safe to allow the  
4 preparation of snow roads and so on to begin.

5 The record does contain a very  
6 significant amount of evidence, though, as to what the  
7 historical record has been both in the Inuvik area,  
8 the Tuk area, and points further south in the Mackenzie  
9 Valley, and there is also evidence about land use  
10 activities on the North Slope in Alaska.

11 I think the evidence which I  
12 have referred to in the written submissions does show  
13 that historically what's been happening is this. Some-  
14 time in October work is allowed to get under way, and  
15 by November, sometime in November, probably early  
16 November on the North Slope, very heavy equipment  
17 is allowed to go onto snow roads. Now I've made  
18 reference to the evidence Dr. Adam gave. He testified  
19 that at Tuk the records indicate a range in the date  
20 for commencement of winter road use ranging over a  
21 13-year period for which data was available, from  
22 October 27th to November 13th.

23 Mr. Longlitz testified on  
24 this subject and he obtained with assistance from  
25 Commission Counsel Exhibit 280 which sets out a bunch  
26 of the information in the land use authority's office  
27 files as to the dates on which various activities did  
28 in fact get under way in various areas, and I've cited  
29 a number of these examples on page C-2. For example,  
30 the Gulf winter road to Parsons Lake, where the





1 initial road preparation started in 1973 on October  
2 29th. <sup>The</sup> Imperial Oil winter road on the Tuk Peninsula  
3 initial work started on October 26th. the Gulf  
4 winter road, Swimming Point, Yaya A-28 in '73-74  
5 they started work October 1st, and by November 1st  
6 were moving in D-6, Kenworth, sows and some rig  
7 equipment. Given similar information for the Fort  
8 Simpson area, and Mr. Fowler's evidence as to Prudhoe  
9 Bay was that the earliest they had been allowed on  
10 in that area was November 3rd, but normally it was  
11 around the middle of November.

12                   So I've presented a similar  
13 review of the evidence with respect to the shutdown  
14 date. Now, the position taken by Arctic Gas as  
15 testified to by Mr. Dau was that in his opinion it  
16 would be necessary to shut down snow road operation  
17 once ten thawing degree days had accumulated. Again,  
18 sir, this is a matter that the land use people, Mr.  
19 Longlitz and his staff have been controlling. They  
20 have established tentative shutdown dates which he  
21 testified to, and are set out on C-3.

22                   For the Inuvik area that would  
23 be April 30th, and the earlier dates as one would  
24 proceed further south. The actual dates for shutdown  
25 appear to be a little bit later than the dates that  
26 they've established, and you will recall from Mr. Long-  
27 litz's evidence that they establish these dates and  
28 then proceed on a day by day basis thereafter.

29                   The evidence presented by Mr.  
30 Longlitz in Exhibit 280 contain no record of shutdown



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1 about the length of the Christmas break. I dealt with  
2 this at pages C-5 and C-6. I think really, sir, the  
3 evidence of the witnesses who have been working at  
4 Prudhoe Bay demonstrates that to a large extent it's  
5 a matter of paying the men and secondly, making sure  
6 that for those who are going to go out, adequate  
7 arrangements have been made so that they're guaranteed  
8 they're going to get a flight and they don't have to  
9 worry about not being able to get a flight home for  
10 Christmas. If arrangements are made to ensure that  
11 aircraft are available, a charter has been arranged,  
12 men are going to be prepared to work until just before  
13 Christmas and then can be brought back on the charter.

14 The submission of Arctic Gas  
15 is that it's going to be possible to keep that Christ-  
16 mas break to within a very tight period of time, perhaps  
17 ten days, and indeed some men may not leave the area  
18 at all during that period.

19 Sir, the second assault on  
20 the feasibility of the Arctic Gas proposal for  
21 construction of the Prudhoe Bay leg related to  
22 ability to work on the North Slope, and this was, as  
23 you will recall, a subject of many hours of cross-  
24 examination by Mr. Gibbs and it led to our calling  
25 a panel to give some evidence as to what their exper-  
26 ience was.

27 To deal firstly with equip-  
28 ment, Mr. Rymes testified on two occasions before  
29 your Inquiry at considerable length as to development  
30 that has taken place in Canada of equipment for use





1 in the Arctic. It is submitted that his evidence  
2 clearly establishes that provided proper preparation  
3 is made in the selection, and adaptation of equipment,  
4 low temperatures will not be a governing criteria with  
5 respect to North Slope work. Wind chill does not  
6 affect machinery, and its only relevance is with  
7 respect to exposed human flesh.

8 Sir, with respect to the  
9 ability of construction personnel to work under con-  
10 ditions of extreme temperature and wind, it is submitted  
11 that the evidence is rather overwhelming that work can  
12 proceed well below the minus 35 degree Fahrenheit wind  
13 chill equivalent cutoff that was arbitrarily selected  
14 by Foothills.

15 I've detailed this part of  
16 the argument, beginning at page C-7 and following,  
17 and I'd like to touch on some of the points, sir.

18 To begin with, Arctic Gas  
19 proposes to make extensive use of shelters which were  
20 described to you in Mr. Daniels' evidence, Mr. Johanson  
21 testified as to the shelters that were in use by  
22 Banister in their work on the North Slope as  
23 well.

24 There is also extensive  
25 evidence from Mr. Fowler and Mr. Johanson on the ability  
26 of outside workers to perform tasks very similar to  
27 those that would be involved in the proposed Arctic  
28 Gas pipeline at wind chill equivalents far greater than  
29 those used by N.E.S. in its planning. You will recall  
30 Mr. Fowler talking about people out in the North Slope





1 working in minus 120 degrees Fahrenheit wind chill.  
2 We're not advocating that but I think it's pretty  
3 clear evidence, it's been done and we don't have to  
4 go to a minus 35 wind chill cutoff. The evidence  
5 establishes that the workers don't like that. They would  
6 rather be out working than sitting around in the  
7 camp, and the experience in Alaska on the North Slope  
8 that Brown & Root had was that they've abandoned such  
9 an arbitrary cutoff. It didn't work. There was no need  
10 to have it. They left it up to the men to work and indeed  
11 the number of days on which no work was done over the  
12 past several winters were extremely limited.

13 Shelters would, of course,  
14 be required, but you've heard extensive evidence from  
15 Arctic Gas as to its plans in that regard.

16 With respect to this minus  
17 35 Fahrenheit wind chill equivalent shutdown for out-  
18 side work, I think the Arctic Gas witnesses called on  
19 this point rejected it out of hand, for reasons I have  
20 mentioned. You will recall, sir, that Mr. Johanson  
21 and Mr. Fowler went through the temperature records  
22 for Tuktoyaktuk for the months of January and February  
23 and they indicated on those records the days on which  
24 outside pipeline work would have to be shut down, based  
25 on their experience in Alaska, and that evidence  
26 demonstrated clearly that even given the very severe  
27 weather conditions that were experienced at Tuk  
28 during those months and those years, pipeline activities  
29 could proceed almost without interruption.

30 I just noted in passing over



1 the weekend, sir, that whatever position Foothills  
2 may have taken on this appears not to have been followed  
3 by A.G.T.L. as they have recently announced the award  
4 of a contract to Banister Pipelines to construct the  
5 main portion of a 36-inch loop of its main gas  
6 transmission line in North-western Alberta to be done  
7 in the winter. The job is planned to kick off November  
8 8th with clearing and grading of a new right-of-way  
9 and completion scheduled for March 1st, 1977.

10 So I think my point is this.  
11 This minus 35 wind chill equivalent shutdown is unrea-  
12 listic, it's not accepted by the people with the  
13 experience, and we submit that Mr. Kosten's evidence  
14 on this point ought to be rejected out of hand.

15 Sir, there was another aspect  
16 of the North Slope construction that was criticized  
17 by Foothills, and that related to the use of artificial  
18 lighting. Well, here again, sir, the evidence of the  
19 North Slope contractors was illuminating. They used  
20 artificial lighting, it works fine. In fact, Brown &  
21 Root went to a double shift through the winter months.  
22 There is no evidence that pipeline construction can't  
23 take place satisfactorily under artificial lighting  
24 conditions.

25 Another subject that received  
26 what is submitted is an inordinate amount of cross-  
27 examination and attention by Foothills was the avail-  
28 ability of an Arctic ditcher or Model 812. This was  
29 described in some detail in Mr. Johanson, Mr. Daniels,  
30 Mr. Dau and Mr. Rymes' evidence. It is submitted that



1 their evidence establishes the following:

2 . An 812 ditcher is simply an extension of the  
3 presently existing and proven 710 ditcher.

4 . A program for the development of the 812 has  
5 commenced. A test program at Norman Wells using the  
6 710 ditcher and newly developed varieties of teeth  
7 is scheduled for this winter.

8 . Substantial advances have been made in teeth  
9 design, cutting dynamics and metallurgy, and teeth from  
10 five manufacturers will be tested this winter in the  
11 field trial.

12 . From an engineering viewpoint there is no reason  
13 to think that an 812 ditcher will not work. It is  
14 simply an extension of existing technology, not new  
15 technology. There is not much in the way of change  
16 necessary for the 812 ditcher, simply a scaling up  
17 of the 710. Even if an 812 ditcher were not developed  
18 or if developed it was found to be no more successful  
19 than the 710, a very large percentage of the route  
20 along the North Slope could be effectively ditched  
21 with a 710.

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1                   If the 812 Development Program  
2 is a failure, therefore, the only consequence would be  
3 that the requirements for blasting and backhoeing could  
4 not be reduced. Sir, it is submitted that the result  
5 of the evidence is to demonstrate that the Arctic Gas  
6 plan of construction along the North Slope was in no  
7 way dependent upon the development of an 812 ditcher.

8                   It indicates as well though,  
9 that if an 812 ditcher is available, it's going to be  
10 of considerable advantage and that advantage will apply  
11 not only to that section of the pipeline, but indeed  
12 to all sections of the pipeline. Sir, Foothills'  
13 overall objective appears to have been to demonstrate  
14 that there was insufficient time available within which  
15 Arctic Gas could complete its planned North Slope  
16 construction in the third winter of pipelaying.

17                  It is submitted that the  
18 various element in Foothills' attack do not stand up  
19 on close scrutiny, particularly its attack on the  
20 ability of men and equipment to work in conditions  
21 of cold, wind and darkness has been shown to be  
22 groundless. It is submitted that a much more realistic  
23 approach was represented by Mr. Dau in the charts for  
24 Inuvik, Shingle Point and Komakuk Beach.

25                  Those charts were marked as  
26 Exhibit 855. Now, in those, as you'll recall sir,  
27 presented the following data: The date on which  
28 construction would have commenced. That is, given the  
29 actual records that existed, when did they have 550  
30 freezing degree-days accumulated? Then it showed the



number of non-working days due to wind chill and they selected a minus forty-five degree Fahrenheit wind chill equivalent and that was, as Mr. Dau indicated, kind of a mid-point in the Burns comfort classification 5 in which work could go on according to Burns.

It programmed into that drawing a ten day Christmas break. It showed the date on which work would have stopped. That is, when ten thawing degree days were accumulated. The number of construction days required to complete the spread assignments in these three areas. The number of working days this would have taken, and the number of days that would have been left as a cushion.

It was submitted that Exhibit 855 testified to by Mr. Dau and the Burns comfort classification chart attached to Exhibit 848, which Mr. Dau also testified to, considered in light of all the available evidence, clearly demonstrate that N.E.S. has been conservative in its plan for construction on the North Slope, and that there is more than enough time available for completion of the spread assignments in the time that there will be available.

I'd like now to deal, sir, with the matter of contingency plans for the North Slope. This has received considerable attention in the cross-examination. It was submitted that the evidence establishes the following:

- 1) Contingency allowances have been built into the northern spreads themselves. They are larger than those in the south. They have more equipment.



1 They have Arctic equipment. For example, they have  
2 cabs over all of the equipment. They have work  
3 shelters. They have smaller assignments. They  
4 have snow making equipment.

5 2) A much larger period is available from start-up  
6 to shut-down in the North than in the South.

7 3) The North Slope leg won't be tackled until the  
8 third winter when Arctic Gas will have two winters  
9 of pipeline experience north of sixty behind it.

10 4) Extra spreads could be added in both Alaska and  
11 the Yukon and indeed because of scheduled changes  
12 south of sixty, spread G is idle that season and  
13 could readily be mobilized. The additional cost  
14 for the two additional spreads would be about  
15 \$118,000,000.00.

16 5) Key operations could be double shifted.

17 Mr. Commissioner, you have  
18 expressed a concern as to what would be the consequences  
19 of a failure to meet the construction schedule for  
20 whatever reason, especially along the North Slope.  
21 Now, Arctic Gas has stated that it has not planned  
22 for summer construction. Its environmental consultants  
23 have said it would unacceptable, and Arctic Gas commits  
24 not to resort to it.

25 But you have said what if it  
26 were not left to Arctic Gas to decide? What if the  
27 Government of Canada were to decide, as a matter of  
28 policy, that an incomplete section of line would have  
29 to be completed even though the winter construction  
30 season had come to an end? That the Government of Canada





1 might reach such a decision is, of course, something  
2 that cannot be predicted. Certainly it would have  
3 before it the report of your Inquiry, sir, and the  
4 predictions of impact contained therein.

5                   It would have an assessment  
6 of the time required to complete the work. It would  
7 have to consider whether a delay in completion until  
8 the late fall could be accommodated given that peak  
9 gas demand would not arise until the winter. The  
10 environmental impact that would result if work pro-  
11 gressed in the summer would be dependent upon the  
12 amount of work still to be done, the location and the  
13 time it was undertaken. There is really no evidence  
14 before the Inquiry that would enable it to determine  
15 with any precision what the environmental consequences  
16 would be and indeed that would be dependent upon the  
17 specific circumstances.

18                   Really the only evidence of  
19 any detail on summer construction on or near the  
20 North Slope related to Foothills' planned summer  
21 construction for the most northerly fifty miles of  
22 its route. What the issue gets down to is simply this;  
23 a worst case upon a worst case scenario has been  
24 developed and it is one that we think is unrealistic.  
25 The various worst cases on analysis simply aren't  
26 there. The ditcher, the artificial light, the wind  
27 chill, the equipment breakdowns and so on. Arctic Gas  
28 has, however, gone beyond this to undertake not to  
29 resort to construction after spring shutdown and it has  
30 no objection to the Inquiry recommending the inclusion





1 of such a term or condition in its report to the  
2 Minister.

3 It is respectfully submitted  
4 that that is as far as the Inquiry can go on the issue.  
5 Sir, it is submitted that the evidence demonstrates  
6 that the length of the construction season available  
7 on the North Slope is entirely adequate. The ability  
8 of men and equipment to perform satisfactorily in the  
9 climatic conditions has been demonstrated and that adequate  
10 contingency plans have been advanced to establish the  
11 feasibility of the Arctic Gas plan for construction of  
12 the Prudhoe Bay gas supply lateral.

13 I'd like to make a few comments  
14 on snow roads, sir. Mr. Scott has included in his  
15 submission some twenty recommendations with respect  
16 to the use of snow roads during pipeline construction.  
17 These range from recommendation 1 stating that all  
18 pipelines constructed within the continuous and dis-  
19 continuous zone be constructed from snow working  
20 surfaces and snow roads. We are in general agreement  
21 but we will be suggesting to you some revised wording  
22 to account for the long stretches of terrain included  
23 in those zones which do not require either snow roads  
24 or snow working surfaces. Sir, this will be included  
25 with the detailed response that we filed to Mr. Scott's  
26 recommendations.

27 We are also in general agreement  
28 with the design and performance criteria recommendations  
29 and will suggest to you some revised wording, mostly  
30 for purposes of clarification. I would, however, like



1 to dwell for a moment on recommendation 4 because it's  
2 inclusion as a recommendation implies that it may not  
3 be possible to construct snow roads along the Yukon  
4 coastal plain and, of course, we do not concur.

5 Recommendation 4 reads as  
6 follows:

7 "As part of its preliminary design submission, the  
8 company shall provide convincing evidence that the  
9 required snow roads along the Yukon coastal plain  
10 are technically feasible and environmentally  
11 acceptable. As part of this demonstration, the  
12 company shall conduct tests of snow harvesting  
13 using fences on the Yukon coastal plain for at  
14 least three consecutive years.

15 Some aspects to be considered are:

16 Orientation of the fences.

17 Time and rate of snow accumulation.

18 Harvesting techniques that minimize surface  
19 disturbance.

20 Spacing.

21 Removal of fences prior to spring melt.

22 Rehabilitation procedures.

23 The demonstration of road building capability using  
24 snow manufacturing equipment shall also be  
25 included".

26 Arctic Gas has already  
27 initiated work on the North Slope with respect to snow  
28 fences. Recently snow fences have been installed at  
29 Prudhoe Bay and Shingle Point and Komakuk, as I under-  
30 stand it. So, that was done in advance of receiving



1 any suggestion from Mr. Scott that this ought to be  
2 pursued further.

3 Well, Arctic Gas can and will  
4 conduct snow harvesting on the Yukon coastal plain in  
5 order to develop and perfect the techniques. We think  
6 that the evidence demonstrates that we've already  
7 conducted enough tests to show that the state of the  
8 art is sufficiently developed to make this use of snow  
9 roads completely feasible.

10 We have testified, and I referred  
11 to it in detail in the submissions, written submissions,  
12 but in spite of Foothills' testimony to the contrary,  
13 Arctic Gas can have the required snow roads to construct  
14 in the necessary timeframe so that construction schedules  
15 are not jeopardized. A snow road test carried out at  
16 Norman Wells and Inuvik during the winters of '72-  
17 '73 and '73-74 prove that we have learned how to properly  
18 construct the roads.

19 The more than 30,000 vehicle  
20 passes made over the Norman Wells test road demonstrated  
21 that snow roads will withstand the traffic loads  
22 anticipated during construction. Environmental  
23 scientists were on hand during construction and testing  
24 of both snow roads and, of course, assessed the effects  
25 of the road trials on the vegetation and perma frost,  
26 and subsequently testified that processed snow roads  
27 can be built which would protect the underlying organic  
28 cover and living plants, thus causing no serious  
29 environmental degradation.

30 In short, sir, we think that the





1 technical feasibility of snow roads has been demonstrated.  
2 The ability to withstand repeated vehicle passes has  
3 been established. That snow roads will not have an  
4 undue impact on vegetation has, I think, been clearly  
5 established. Work is now going on by Arctic Gas with  
6 respect to the use of snow fences on the North Slope  
7 to accumulate snow and it seems to us that's probably  
8 the last of the areas that needed addressing, and the  
9 technical feasibility of the concept is well established.

10 Finally, sir, I want to deal  
11 with a short matter involving operations and maintenance  
12 if Mr. Scott can withhold his applause for a moment.

13 MR. SCOTT: Sorry Mr. Marshall,  
14 that wasn't me.

15 MR. MARSHALL: You've heard  
16 testimony from both Arctic Gas and Foothills pertaining  
17 to the manner in which the pipeline systems would be  
18 operated and maintained. For the most part procedures  
19 and techniques planned to be used in the North have  
20 been proven through years of operating more southerly  
21 pipelines and for this reason, you will have noted that  
22 Arctic Gas and Foothills' plans are very similar.

23 There is, however, one very  
24 major difference between the manner in which a pipeline  
25 system located in the North must be operated and the  
26 manner in which those of more populated regions are  
27 operated and I'm referring, of course, to access to  
28 compressor stations.

29 In order to provide access in  
30 as reliable a manner as possible, Arctic Gas plans to



1 utilize fixed wing aircraft supplemented as required  
2 by helicopters. Foothills, on the other hand, plans  
3 to rely solely on the helicopters for access by air,  
4 stating that these machines are safe and reliable as  
5 fixed wing aircraft under the climatic conditions  
6 expected to be encountered.

7                   However, Mr. Scott has stated,  
8 and he may now wish to applaud, Foothills' heavy  
9 reliance on helicopters for transport of equipment and  
10 men gives rise to concerns over their reliability of  
11 their plans. Helicopters cannot operate legally and  
12 safely under adverse weather conditions such as fog,  
13 icing, darkness, extreme low temperature, and in  
14 particular, whiteouts.

15                   Should an emergency situation  
16 arise under any one of these conditions, Foothills'  
17 response capabilities could be severely curtailed.  
18 Of course, we think that for once and, of course, this  
19 isn't the only time, Mr. Scott is quite correct. We  
20 ask you, sir, to bear this in mind because in the event  
21 Foothills were to receive certification, we think that  
22 very quickly they would be forced to adopt or adapt  
23 their plan and recognize the criticism Mr. Scott has  
24 put forward and that would lead them to a plan relying  
25 upon the use of aircraft.

26                   Of course, that would require  
27 construction of the permanent airstrips such as are  
28 being proposed by Arctic Gas.

29                   Those, sir, conclude my  
30 submissions.



1 THE COMMISSIONER: Well, it's  
2 almost 12:30, Mr. Scott. I think we should adjourn,  
3 and then we'll hear from Mr. Gibbs on behalf of Foothills  
4 after lunch. Should we take the usual break for lunch?

5 MR. SCOTT: Yes sir, I think so.

6 THE COMMISSIONER: All right,  
7 we'll adjourn until two o'clock.

8 (PROCEEDINGS ADJOURNED UNTIL TWO O'CLOCK)

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1 (PROCEEDINGS RESUMED PURSUANT TO ADJOURNMENT)

2 THE COMMISSIONER: Well, shall  
3 we come to order and consider the submission of Mr.  
4 Gibbs?

5 MR. GIBBS: Mr. Commissioner,  
6 by way of opening, might I endorse Mr. Genest's request  
7 made when he first began to speak that we be given some  
8 time to respond to Commission counsel's recommendations  
9 in writing? I don't know what an appropriate time  
10 limit might be, perhaps two or three weeks, but some-  
11 thing in which to respond to those 800 pages which  
12 takes a little time to digest.

13 The other point I want to  
14 refer to, sir, before commencing my submission was  
15 Mr. Marshall's joke at my expense about what was  
16 circulated in advance. You will recall, sir, that  
17 when I appeared before you two or three weeks ago  
18 I was troubled about what would be put into such an  
19 advance submission. I anticipated then and I was  
20 not disappointed that Commission counsel's recommenda-  
21 tions would be so detailed that one would find it  
22 difficult to respond in the time available; and I  
23 also anticipated and wasn't disappointed that Arctic  
24 Gas would put together a mixture of new evidence and  
25 quotes from their own witnesses.

26 That didn't seem to be very  
27 helpful to me, so I concluded that probably the most  
28 helpful thing I could do would be to list a -- give  
29 a tentative list of subject matters and speak to those  
30 ad lib from the stand, and that's what I did. It was





1 not an over-the-weekend composition, it was what I  
2 thought would be helpful.

3 Mr. Commissioner, as the  
4 evidence has shown, and has been pointed out to you  
5 many times, one of the Foothills sponsors, Alberta  
6 Gas Trunk Company Limited, was once a member of the  
7 Arctic Gas consortium, and was in fact up until  
8 September of 1974. Accordingly, all of the material  
9 by way of studies and tests that became available  
10 prior to that time was available to Alberta Gas Trunk  
11 and through Alberta Gas Trunk to Foothills.

12 So that Foothills commenced  
13 in September, 1974, with all of the background and  
14 basic work that then was in the possession of the  
15 Arctic Gas consortium.

16 Many of the -- all of the  
17 reasons, I think, why Alberta Gas Trunk parted from  
18 that consortium have been related to you, sir. The  
19 one I want to speak to first of all arises from  
20 the Arctic Gas conviction that this new pipeline  
21 project in this new Territory ought not to be a testing  
22 ground for new untried technology in place of known  
23 technology with which there was and is construction  
24 and operating experience.

25 That conviction, Mr. Commis-  
26 sioner, led to the choice by Foothills to use existing  
27 technology and existing construction techniques wherever  
28 possible. That in turn, sir, means that the differences  
29 between what has been done in the south by the Foothills  
30 sponsor and what will have to be done in the north by



1 Foothills are relatively minor.

2                               What seems to me, sir, to  
3 have become somewhat obscured throughout the course  
4 of these proceedings is that pipeline building is  
5 not new, it's not unusual, it's not exotic, it's not  
6 formidably difficult. It's for those reasons, sir,  
7 that we do take issue with Commission counsel's posi-  
8 tion that we face a project with very little precedent  
9 upon which to base it. In our submission there is  
10 ample precedent. Both Westcoast and Alberta Gas  
11 Trunk, the sponsors of Foothills, have built and  
12 operate hundreds of miles of pipeline of varying  
13 sizes and pressures through every variety of terrain.

14                           I sought, sir, to try and  
15 make a list of the differences between building and  
16 operating south of the 60th Parallel and viewing the  
17 same thing between there and the delta. The one  
18 obvious difference, sir, is the permafrost portion.  
19 Clearly and obviously that is a new element to take into  
20 account in the construction phase. But so, Mr.  
21 Commissioner, was muskeg when it was first encountered  
22 and so was rock, and the means of dealing with each of  
23 these was devised and successfully implemented.

24                           In fact, for construction  
25 purposes, the analogy between permafrost and rock is  
26 apt; and insofar as Foothills construction people are  
27 concerned, the method used with each are the same.  
28 Blasting and excavating with backhoe wherever the ice  
29 content produces a rock consistency, and where the  
30 ice content is low enough, the ordinary backhoe treatment



1 should be sufficient.

2 In our view, sir, the problems  
3 of constructing in permafrost are really -- to borrow  
4 Mr. Genest's words -- ephemeral. What will be new in  
5 respect of the operating phases, sir, and what will  
6 be different in comparison to southern operations is the  
7 fact that the gas will have to be chilled over long  
8 distances. Chilling of gas is not a new technique.  
9 It occurs certainly in plants where gas is converted  
10 to L.N.G. It is new to prolong the chilling over the  
11 distances involved in the northern pipelining, but  
12 it is really an application of existing knowledge and  
13 technology.

14 A new aspect which arises out  
15 of the chilling is the effect on the non-permafrost  
16 areas of the discontinuous permafrost zone. That is,  
17 of course, the frost bulb and frost heave question.  
18 In assessing that problem, Mr. Commissioner, the first  
19 conclusion of Foothills -- and this was developed in  
20 the evidence before you -- was that if one is to choose  
21 between settlement because of a warm line, or frost  
22 heave because of a chilled line, and one is forced to  
23 make that choice, the former is preferable, and that  
24 it's preferable because we believe that the problem of  
25 settlement in permafrost is far better known and  
26 understood. It has been encountered before, and has  
27 been successfully handled in other northern construction  
28 of other types.

29 It is for that primary reason,  
30 sir, that Foothills elected to cease chilling as far





1 north as seemed practical. But that does not mean that  
2 we avoid the frost heave problem, merely that we re-  
3 duce its incidence. The only other significant differ-  
4 ence that occurred to me, sir, in comparing the  
5 Foothills plan and the operation of its sponsors  
6 further south was the extensive use of snow roads and  
7 snow work pads.

8 But as is the case with the  
9 chilling technique, the difference is in magnitude  
10 and not in concept. Snow roads are not new and  
11 what we are proposing to do is adopt the technique  
12 to a larger use.

13 So in essence, Mr. Commissioner,  
14 the technological difference upon which Foothills had  
15 to focus was that of frost heave control.

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1                   As I pointed we had through  
2 Alberta Gas Trunk membership in Arctic Gas all of the  
3 data and research results developed prior to September,  
4 1974. But Foothills was not content with that. The  
5 technical staff were not satisfied with the Arctic  
6 Gas claims that they could predict frost heave and  
7 thus devise control measures based upon models built  
8 upon their lab work.

9                   It was not until the Arctic  
10 Gas frost heave evidence was lead before the National  
11 Energy Board some weeks or months ago that we were  
12 able to demonstrate through cross-examination with  
13 the Arctic Gas witness that his predictions did not  
14 match what had actually occurred in the Calgary test  
15 site.

16                  We are not therefore, Mr.  
17 Commissioner, surprised when a third party discovered  
18 a defect in the lab apparatus. We had been dissatisfied  
19 with the work from the beginning. So, we commissioned--  
20 when we left the study group, we commissioned our own  
21 studies. These have been filed with the Inquiry, at  
22 least the first have. The second will be ready shortly.  
23 I'm told probably by Friday of this week and will be  
24 filed with the National Energy Board and if permission  
25 is granted, with this Inquiry.

26                  We believe that the techniques  
27 displayed in the two frost heave studies which we have  
28 conducted show that we indeed can predict frost heave,  
29 that we are not subject to the defects which occurred  
30 in the Arctic Gas system. We believe that we can fore-



1 cast the outside limits of frost heave over the life  
2 of the project.

3 But in any event, Mr. Commissioner,  
4 whether one can accurately forecast or not, the real  
5 concern is how to control frost heave in practice.  
6 At Foothills we tend more and more to lean towards the  
7 use of insulation. Studies which have been conducted  
8 would indicate that it is the most practical means  
9 of limiting the growth of the frost bulb and therefore  
10 the amount of frost heave. We know, sir, that more  
11 research and work is required. We intend to pursue  
12 that research and work, and we would do so whether or  
13 not there is a review board because it is in our self-  
14 interest to do so.

15 It is only by mastering the  
16 technique of controlling frost heave that we avoid  
17 intolerable stresses on the pipe and maintain the  
18 integrity of the pipeline. It is as much a concern of  
19 ours, therefore, as it is of anyone. That is also the  
20 case Mr. Commissioner, with the other prime geotechnical  
21 concern which is that of erosion and slope stability.

22 The work that has been done on  
23 those problems has been filed. Our witnesses have  
24 testified to it. Like the control of frost heave,

25 the control of erosion and the maintenance of slope  
26 stability is equally a matter of self-interest, because  
27 involved in that is the question of pipeline integrity.  
28 We must maintain that to maintain the service through  
29 the pipeline so that those two geotechnical concerns  
30 which have been a matter of lengthy study are continuing



1 to be and are of serious moment to us.

2 With respect generally, Mr.  
3 Commissioner, to geotechnical and environmental matters,  
4 we've already done a great deal towards their  
5 resolution. I draw your attention, sir, to the  
6 environmental studies done through the Environmental  
7 Protection Board whose funds we contributed to. I draw  
8 your attention to the studies and tests for the test  
9 sites, those are Prudhoe Bay and Norman Wells having  
10 been built by the study group, lead by Alberta Gas  
11 Trunk.

12 I draw your attention, sir, to  
13 the various socio-economic surveys and studies that  
14 were commissioned and to which Alberta Gas Trunk con-  
15 tributed part of the funds. I recall to you, sir, the  
16 drilling programs for soil samples which have been  
17 undertaken and for purposes of permafrost mapping,  
18 and the field work that is done on erosion and slope  
19 stability.

20 All of these, sir, were instigated  
21 and conducted for the sole purpose of obtaining the best  
22 understanding of the environmental and geotechnical  
23 aspects, the better to minimize the adverse effects  
24 in those areas. As well as environmental and geo-  
25 technical investigations, Mr. Commissioner, Foothills  
26 and its sponsors have been in the forefront of community  
27 related work.

28 You'll recall, sir, that the  
29 Nortran program was originated by Alberta Gas Trunk; that  
30 the Environmental Protection Board was originated by





1 Alberta Gas Trunk; that the Business Opportunities  
2 Board an organization which Mr. Genest said ought to  
3 be set up has been initiated through the activities  
4 of Foothills; that part of the Foothills' plan is to  
5 provide gas to northern communities; that early  
6 community liaison months and years ago was conducted  
7 by Alberta Gas Trunk through travelling to the  
8 communities and having discussions and making displays.

9 All of this kind of activity,  
10 Mr. Commissioner, was originated and carried on  
11 primarily by Alberta Gas Trunk in the same spirit as  
12 it conducts its big business activities in Alberta  
13 where it finds that that type of constant liaison and  
14 work with communities is useful and pays dividends both  
15 to the company and to the community.

16 The subject of community and  
17 company interchange, Mr. Commissioner, brings me to the  
18 question of native claims. I have not prepared a legal  
19 analysis of them. I'm not prepared to argue the merits  
20 or demerits. That's for other people, Mr. Commissioner,  
21 at other times, in other forums. And in any event, I'm  
22 not convinced that a judicial determination of title  
23 to land will dispose of all of the native claims.

24 It seems to us that there are  
25 more matters involved than merely a claim to land.  
26 But whatever the case, and the content of the claims  
27 and the merits, it is Foothills' position that  
28 construction should not commence until agreement has  
29 been reached between the negotiating parties on the  
30 basic principles of settlement of the claims.



1                   We do not say, sir, that every-  
2 thing must be signed, sealed and delivered and  
3 legislation, if necessary, placed on the statute books.  
4 But we do say agreement in principle and sufficient  
5 acceptance that there will not be a prospect of  
6 constructing and operating in a generally hostile  
7 territory.

8                   It is our position, sir, that  
9 the reasons why there should be such a condition  
10 precedent, that is settlement in principle, are  
11 compelling. Firstly in our view, if construction  
12 proceeds prior to settlement in principle, the position  
13 of one party to the negotiation will be seriously  
14 prejudiced.

15                  We fail to see how it can be  
16 otherwise. Anyone who has even been involved in  
17 negotiations where an ultimate power of expropriation  
18 hangs overhead knows that if that power is exercised,  
19 there is no more negotiation. There is merely  
20 implementation of the mathematical process of determining  
21 money compensation, if money can ever be adequate  
22 compensation. Because that which gives strength to  
23 one of the negotiating arms is gone.

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1                                   A second compelling reason  
2     that we put forward, Mr. Commissioner, is that no  
3     prudent operator -- and we suppose that perhaps  
4     Arctic Gas would expect to fit into that category --  
5     that no prudent operator will attempt to construct  
6     or operate in large areas where it could be said that  
7     there was generally universal hostility. The conse-  
8     quences of overt destructive action, as an expression  
9     of the hostility and resentment, are too enormous.  
10    In fact, financially they are potentially disastrous.

11                                The third compelling reason,  
12    Mr. Commissioner, arising out of the second is that  
13    there is and must be serious doubt of the ability to  
14    finance a project of this size until those claims are  
15    settled, or at least until the hostility has gone.  
16    That's because when seeking to finance, one must be  
17    able to ensure the integrity of the operation and to  
18    assure income with which to pay returns to lenders  
19    and to the common shareholders. One must also be  
20    able to demonstrate title to those sophisticated  
21    North                   American lending institutions who are  
22    expected to put up some three-quarters of cost.

23                                In my submission, Mr.  
24    Commissioner, even a compulsory taking will not cure  
25    these latter two reasons, the last of the two problems  
26    which I have mentioned, that of exposing your operation  
27    in hostile territory and of financing.

28                                On the contrary, it would  
29    seem that it would be likely to serve only to exacerbate  
30    the hostility and resentment which you hope to overcome.





1 Therefore to postpone rather than hasten the atmosphere  
2 of acceptance which is necessary to such a new  
3 development.

4 I asked myself, M r. Commis-  
5 sioner, why Arctic Gas would take a different position  
6 at this time, why it would seek to say that construction  
7 can go forward without prejudice, why it would seek  
8 or draw to your attention the powers of expropriation.  
9 The only conclusion that I could come to was because  
10 it is not due to Canadian needs but because of the  
11 pressure of its U.S. sponsors.

12 I know, sir, in making these  
13 remarks to you that our opponents, and primarily  
14 Arctic Gas, will seize upon what I have said and  
15 trumpet accusations that Foothills seeks delay. That's  
16 happened before to us. It is not now, Mr. Commissioner,  
17 and never has been the case that we seek delay. We  
18 as much as anyone want to get on with the construction.  
19 Our sponsors, Mr. Commissioner, are in the business of  
20 meeting market requirements for natural gas. We are  
21 as conscious as anyone of the need for it, but we also  
22 know that if we have to, we in Canada can manage for  
23 some time yet without it.

24 What we seek, sir, to inject  
25 into the consideration of the native claims is a note  
26 of realism. We submit to you, sir, that it is  
27 time to face the facts. We submit to you that no one  
28 -- white northerner, native northerner, pipeliner,  
29 southern gas user, politician, financier -- can gain  
30 anything from turning away or failing to see the



1 position of the natives for what it is, and in our  
2 view that is reality and the reality is as we have  
3 stated it.

4 If that means delay in  
5 startup, Mr. Commissioner, it seems to us we'd better  
6 face that too, and devise the means of coping with  
7 the consequences in the interval; and that can be  
8 done, sir, and is being done. At this very moment, and  
9 this evidence came before the National Energy Board  
10 very recently, at this very moment in certain areas  
11 of Southwestern Ontario, fuel oil is being used as  
12 a replacement form of energy, not because of need but  
13 because of price. Certainly, therefore, what can be  
14 done because of price can equally be done because of  
15 need; and if the threatened shortage of gas develops,  
16 there is that alternate energy source to turn to, that  
17 which is now being used.

18 I'm not sure, Mr. Commissioner,  
19 that it is fair or realistic to assume inordinate  
20 delay. My friend raised the danger of the pipeline  
21 plans being dropped and thus one of the negotiating  
22 counters dissolving in the hands of the player.  
23 It seems to me that that possibility will be present  
24 in the mind of the informed negotiator, and will be  
25 a very strong impetus to bring him to the bargaining  
26 table prepared to negotiate in good faith. And the  
27 demand for gas in Eastern Canada will surely act as  
28 an equivalent spur on the other negotiator.

29 In any event, Mr. Commissioner,  
30 as stated by Mr. Blair and Mr. Kelly Gibson, the



1 chairman of Foothills at other times both here and  
2 elsewhere, that is the position of Foothills on the  
3 native claims.

4 MR. GENEST: If my friend  
5 with that  
6 is finished/-- I'm sorry to interrupt, Mr. Commissioner,  
7 but I wonder, it certainly would be helpful to know  
8 if he takes the position that his Foothills-Yukon  
9 route should not go forward until native claims there  
10 have been settled.

11 MR. GIBBS: Well, sir,  
12 we will meet the question of native claims with the  
13 Foothills-Yukon project in the proper forum when we  
14 reach the time of delivering the evidence. My friend,  
15 Mr. Genest, seeks to get this before you. My friend,  
16 Mr. Marshall, seeks to rebut it before it's ever  
17 arrived here. I thought that what we were speaking  
18 to here was the Maple Leaf project in the Mackenzie  
19 Valley and it's to that that I address myself.

20 MR. MARSHALL: We're just  
21 trying to keep you on your toes, Reg.

22 MR. GIBBS: I noticed that  
23 habit that you have.

24 At this point, sir, might I  
25 address a few remarks to the socio-economic aspects?  
26 Again I urge upon you, Mr. Commissioner, that the time  
27 has come to face the facts and to face the stark  
28 reality. In my submission the time has come to have  
29 done with any thought that the pipeline will cure the  
30 economic ills of the north. It will not, and the sooner  
that is realized, the better.





1 I'm not about, Mr. Commissioner,  
2 to embark upon a recitation of the state of the northern  
3 economy, as did my friend. It is well-known. It does  
4 not help matters to recite the facts over and over  
5 again. I never found that a daily recitation to me  
6 of how poor I was made my poverty any easier to bear  
7 or did anything to lighten it.

8 The plain fact appears to be,  
9 Mr. Commissioner, that at this stage at least the north  
10 is one of those areas of the world which cannot support  
11 more than a few thousands of population. The circum-  
12 stances of the area are such that it is not conducive  
13 to labor-intensive activity except on a small scale  
14 and in limited areas. There is nothing that I know  
15 of in prospect that is likely to change that, and  
16 certainly in my submission the pipeline is not going  
17 to do it.

18 To hold it forth, Mr. Commis-  
19 sioner, as a harbinger of good times or a panacea to  
20 the people of the north is to perpetrate a hoax. Let  
21 me try, sir, to put it in perspective.

22 What is sought by Foothills  
23 and on a larger scale by Arctic Gas is a right-of-way  
24 by which to transport a resource which is in or predic-  
25 ted to be in abundant supply far beyond local needs  
26 in one part of Canada, to another part of Canada where  
27 there is need and a threatened shortage. That process,  
28 sir, of moving supply from one part of Canada to markets  
29 in another part is well-known. It is a process which  
30 assists in maintaining the ties of interdependence that





1 bind our nation. It is a process which contributes  
2 to the wealth of the nation and thus redounds to the  
3 benefit of all parts of the nation.

4                               Incidental to that transpor-  
5 tation objective, sir, is the obligation to ensure  
6 that the area from which the resource is taken is  
7 fairly treated and is accorded generous economic  
8 recognition. However, sir, as much as one would wish  
9 to be totally open-handed, there are limits to the  
10 extent of the load which can be imposed upon the  
11 transportation system. By a simple matter of logic  
12 it is known that too much of a load prices the product  
13 out of the market, and nobody gains.

14                              What are the incidental  
15 benefits in prospect for the north, sir, in the  
16 long term? Now I address you in terms of the present  
17 political framework and the present regulatory and  
18 tax systems, for that's all we have now to deal with.

19                              What might happen in the  
20 future is speculation.

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1 I'm going to be blunt, Mr.  
2 Commissioner and say to you that the incidental benefits  
3 in prospect to the North are not large. There will  
4 be some effects but not large enough to conjure up  
5 the prospect of a pipeline initiated wholesale change  
6 in the social and economic structure of the North.

7 The apprehensions of that  
8 happening are not well founded. Aside from the  
9 transient construction phase, some two or three years  
10 out of twenty-five plus years, and Mr. Genest has  
11 spoken of the job training and the job opportunities  
12 related to the construction phase of a pipeline  
13 operation. Aside from that, sir, in the operations  
14 phase of the pipeline, it is not labour intensive.

15 There will be some two to three  
16 hundred jobs in operations and maintenance functions.  
17 Of course, that's better than no jobs at all but it's  
18 not a huge alleviation of unemployment. There will be  
19 some increase in local purchasing, some increase  
20 in freight handling and matters of a like nature.  
21 There will be property taxes, but those property taxes  
22 calculated on the current basis will amount to something  
23 about five percent of the Territorial Government's  
24 annual income requirements.

25 All of those, sir, are helpful,  
26 but the point I want to stress to you is that none are  
27 of great economic magnitude. My friend spoke of the  
28 income taxes which would be paid by the pipeline  
29 operator. For some years, sir, those are paper taxes.  
30 While tax liability has accumulated, the effect of



1 deducting the depreciation is that no money flows,  
2 certainly in the earlier years. The time does come  
3 when income and expenditures cross over and there is  
4 tax payment, but that does not occur at an early point  
5 in time.

6 My friend spoke of the royalties  
7 which could accrue. That is a hope, sir, which we  
8 share, but hopes are not very sound bases for planning.  
9 Right now, there is no basis upon which one can come  
10 to a realistic figure of what the royalties would be.  
11 And the reason is this; the amount of gas which will  
12 flow is not known. My friend speaks of two and a  
13 quarter billion cubic feet because that's the capacity  
14 of his line. I can say let's take 2.4 and make a  
15 calculation.

16 The fact is that the present  
17 reserves in the delta are such that there is nowhere  
18 near that kind of daily volume. What will the royalty  
19 rate be? Five percent? Ten percent? Twelve and a  
20 half percent? Who knows what it will be, and what will  
21 the price be upon which the royalty is calculated and  
22 that is unknown. We have sought assiduously  
23 in Ottawa to try and determine a price which will apply  
24 to the gas as it is produced from the ground and have  
25 not yet succeeded in overcoming the reluctance of the  
26 shy producers.

27 With all of those unknowns, sir,  
28 while one can make assumptions one cannot fix on any  
29 amount which will be revenue by way of royalties.  
30 Lastly, sir, there will be little or no resource related





1 activity attached to the pipeline because of the costs  
2 of transporting finished products from this part of the  
3 world.

4 I think no one denies or contests  
5 that the pipeline will be a transporter of the raw  
6 resource. As for the pipeline itself, Mr. Commissioner,  
7 and its effect upon the North and upon the communities,  
8 it is probably and I should think not only probably  
9 but certainly less visible than any other means of  
10 transport.

11 After the construction phase,  
12 it will be unseen, and to a large extent, except for a  
13 few above ground installations and cutlines through  
14 the bush, overlooked. It will be in large part as if  
15 it had never occurred. That is the southern experience  
16 and there is no reason to think it would be otherwise  
17 here.

18 We have made calculations, Mr.  
19 Commissioner. We've put them before you. We've made  
20 calculations of property taxes, of royalties, of  
21 income taxes, of all sorts of other possible incomes.  
22 But with all of those calculations, one ultimately  
23 gets to the point of saying, "if" If this happens  
24 this will flow. If this happens this will flow. And  
25 the "if" has yet to be resolved.

26 That will be the circumstance,  
27 Mr. Commissioner, of the benefits to the North unless  
28 some measures are taken to ensure to northerners a  
29 piece of, if not all, of what will flow to others.  
30 In that connection, the obvious example are the royalties



1 and the income tax, if and when paid. Now, sir the  
2 opportunity to bring about or hasten the changes  
3 required for some of those perspective funds to find  
4 their way to the direct benefit of all northerners,  
5 white and native, is something which seems to us will  
6 probably play a large part in the settlement of  
7 claims.

8 It's something which, in our  
9 view, will take much longer to achieve if the bargaining  
10 power in the negotiation process is lost through  
11 construction and operations proceeding before settlement  
12 of the claims in principle. And the loss of that  
13 bargaining advantage seems to me, sir, to mean the  
14 loss of the right to make local decisions to deal with  
15 local problems using local funds.

16 That is to say, sir, the loss  
17 of the right which every other Canadian citizen has  
18 to determine in some significant measure the standards  
19 and priorities within the community. It is because  
20 we do not see large long-term social and economic  
21 effects from the pipeline, Mr. Commissioner, that we  
22 question the need for or practicality of Commission  
23 counsel's vast sociological superstructure about which  
24 we will speak in more detail in our written responses.

25 If southern experience is  
26 anything to go by and, in my submission, it is  
27 experience and it can be examined, the communities  
28 will in large part be the same as they were before.  
29 Even in the construction phase, sir, having in mind  
30 the restrictions on workers in camps, the location of



1 camps, the temperature, the working conditions, even  
2 in the construction phase, it would seem logical to  
3 conclude that the impact is likely to be small; that the  
4 construction crew appears on the south in the distance  
5 one day. Two days later it passes by and two days  
6 later it's gone, and that is what most communities  
7 will see.

8 But the fact, Mr. Commissioner,  
9 that adverse impact is apprehended means that one  
10 cannot ignore it. Whether one believes it will happen  
11 or not, it must be taken into account, and I presume that  
12 it is for that reason that Commission counsel recommended  
13 some of the services which he thought should be provided  
14 in the local communities. We believe that the need for  
15 those services exists with or without the pipeline and  
16 is primarily the responsibility of local and territorial  
17 authorities. Although it cannot be denied that the  
18 pipeline applicant is obliged to compensate for loss  
19 or damages and, of course, through its property taxes  
20 or other levies, to contribute toward the cost of  
21 necessary social services.

22 We do not believe, however, that  
23 it should be or is the responsibility of a pipeline  
24 company to set up a separate superimposed system of  
25 social services over those which are available through  
26 government agencies. Mr. Commissioner, with respect  
27 to the next point which I wish to address; that is the  
28 role of regulatory supervision, that is another Commission  
29 counsel recommendation which we will address in detail  
30 but briefly at this time, I put before you the Foothills'





1 position and that is that we look upon a single  
2 regulatory authority as desirable, but not one that  
3 is absolutely essential.

4 In other parts of Canada where  
5 pipelines are constructed from northern Alberta through  
6 to as far east as Montreal, operations--construction  
7 operations go forward dealing with different  
8 government agencies. Rivers must be crossed and the  
9 Navigable Waters Protection Act met. Environment  
10 Canada must be satisfied. The National Energy Board  
11 must be satisfied. There are numerous agencies with  
12 which one has to deal and to this time, people have  
13 succeeded in doing that and the system has worked  
14 well.

15 So that we put, sir, the choice  
16 of a single regulatory agency as preferable but far  
17 from being essential. If there is to be a single  
18 agency, in our view, it is obvious that it ought to be  
19 the National Energy Board.  
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1                   It is that Board which is  
2 presently charged with the responsibility by its  
3 Statute. That Board has for years been exercising  
4 those functions of supervision and inspection and  
5 control. Again, the system has worked well.

6                   I know that there are those  
7 who express disenchantment with the National Energy  
8 Board in some of the things that it has done in the  
9 past, but I have never heard anyone levy criticism  
10 of it over that day to day supervision and control  
11 of construction and operations; and the very fact that  
12 there has been minimal, if any, criticism is a testimony  
13 to the fact that it works and works well.

14                  It may, sir, be necessary to  
15 expand it, and that we would agree with. It may be  
16 necessary to expand it because of some special problems  
17 with the north, but the framework is there, the history  
18 is there, and the experience is there.

19                  Commission counsel made  
20 reference early in his -- yesterday when he spoke  
21 of a Geotechnical Review Board. In our submission  
22 that ought also to be a part of the National Energy  
23 Board function. It is now. In fact, in respect of  
24 the frost heave problem which I spoke of earlier, there  
25 is a resident expertise on that Board on precisely  
26 that question. It seems to us that the geotechnical  
27 aspect is as much a matter of jurisdiction of that  
28 Board as is the engineering and the technical.

29                  With respect to sociological  
30 matters, in our submission those are best dealt with



1 by existing institutions. It would seem to us to be  
2 inappropriate to expand the National Energy Board  
3 function to deal with sociological matters when their  
4 jurisdiction primarily deals with the technical.

5 A few words, sir -- perhaps  
6 more than a few -- about the Arctic Gas North Slope plan  
7 which Mr. Marshall spent so much time dealing with.  
8 In our submission, Mr. Commissioner, that ought not  
9 to be allowed to proceed. I know that things are not  
10 decided democratically and that ultimately the  
11 recommendation must come from you, but I remind you  
12 that probably every participant in this Inquiry except  
13 Arctic Gas has opposed the use of the North Slope route,  
14 and the reasons have been developed in detail before  
15 you.

16 Such things as the injection  
17 of a transportation route where none has previously  
18 existed, and one which in my submission must invariably  
19 attract a similar transportation mode. If there is  
20 ever to be an oil pipeline built overland from Alaska  
21 to the mid-Western United States, it simply has to  
22 go alongside of the gas line. One cannot say, "Here,  
23 Arctic Gas, the door is open; now it's closed."

24 They will come with the  
25 same arguments and the same compelling reasons that  
26 Arctic Gas does. In my submission, to resist that  
27 development will be difficult indeed, or any others  
28 of that nature.

29 The route, sir, invades what  
30 even Arctic Gas admits is a unique environmental pro-



1 vince, Cluttered up, as Mr. Marshall says, by oil  
2 drums, no doubt left by Arctic Gas environmentalists  
3 but one which is nonetheless unique in Canada.

4 I don't propose to deal at  
5 great length, sir, with the environmental aspects  
6 because there are others who speak after me who will  
7 I know deal with it in more detail. What I do want  
8 to deal with is the construction techniques, because  
9 it seems on looking at the construction plan with  
10 detachment, which I do, that it has been designed  
11 sir, to almost ensure that it cannot be accomplished  
12 in one winter season. Of course, there are serious,  
13 if not fatal consequences to the whole Arctic Gas  
14 project if that occurs, as well as the consequences  
15 of a winter and a summer or a two winter season on  
16 the environment.

17 I submit to you, sir, there  
18 is doubt so overwhelming as to be almost conclusive  
19 that Arctic Gas has the ability to meet its construc-  
20 tion schedule. The whole structure, sir, across the  
21 North Slope of construction is about as solid as a  
22 row of teetering dominos, and if one falls, down go  
23 all the rest. What are they?

24 First of all, sir, there is  
25 productivity based upon a super ditcher which we now  
26 tend to refer to as a phantom ditcher, because it  
27 has not yet been designed. Consequently it hasn't  
28 been field tested, and consequently there is no basis  
29 upon which to predict productivity.

30 My friend, Mr. Marshall, says,





1 "Well, it's just an extension of the 710."

2 Well, that's pretty cold  
3 comfort because the 710 never worked satisfactorily  
4 either, and if you examine, sir, which we have done  
5 in detail the ditcher test reports, the 710 never  
6 achieved a productivity sufficient to have it used  
7 as -- on a construction basis. That's why they're  
8 still turning out more teeth and running more winter  
9 tests.

10 Now, sir, if the 710 won't  
11 work, how can one seriously plan a whole winter  
12 construction on an 810 that hasn't yet been designed?  
13 It seems to us, sir, that it's, with respect, utter  
14 nonsense to take that approach.

15 It's sort of like the frost  
16 heave test where huge amounts of money, massive amounts  
17 of paper, much self-congratulatory breast-beating  
18 and then a discovery that it doesn't work. In fact,  
19 sir, in my submission when one looks at this North  
20 Slope construction program, the most disturbing  
21 characteristic of it all is that it's almost all theo-  
22 retical.

23 The productivity, Mr.  
24 Commissioner, is based also upon what in my submission  
25 are totally unreal assumptions as to the ability of  
26 men to work long hours in the dark in the winter con-  
27 ditions that prevail, and I am not convinced, no matter  
28 how many people sit in that witness stand and say that  
29 people worked at 120 degrees below. That's kind of--  
30 sort of a smiling president's pipeline club who come



1 and say, "Oh yes, our men did it."

2 But sir, how much did they  
3 do at those temperatures? Anyone can go outside in  
4 those temperatures, but the real question is what can  
5 be accomplished? That is what Arctic Gas must succeed  
6 in doing, is maintaining productivity. That panel,  
7 sir, in fact turned as an analogy on a comparison  
8 to a project which is not in any way comparable.  
9 What they had worked on was the above-ground construc-  
10 tion of a gathering system which is a long way from  
11 a buried four-foot pipeline.

12 When I heard of that evidence,  
13 sir, I heard that evidence in Ottawa also. It reminded  
14 me of the quote that I had read of Lord Chief Justice  
15 Goddard, who was once quoted as saying,

16 "That it is not to be taken that when one is  
17 appointed to the bench he abdicates common  
18 sense."

19 That really is what that panel is asking you to do.  
20 Sir, you have been there. We have been there. There  
21 is no point in saying it can be done when one's own  
22 experience raises that serious doubt.

23 I leave it at that point,  
24 sir.

25 The Arctic Gas productivity  
26 for the North Slope, Mr. Commissioner, is based on the  
27 use of artificial light. Artificial lighting on a  
28 scale and on a project such as never before been used,  
29 again they point to the above ground smaller diameter  
30 gathering system which is not a comparison, is not a



1 basis upon which one can then extrapolate and say,  
2 "Oh, boy, we can do this on the North Slope."

3 Their productivity, sir, is  
4 based upon a massive snow manufacturing program with  
5 snow manufacturing machines of a size never before  
6 seen, not yet produced and not yet field tested. Each  
7 one of these items, sir, is really a paper study. The  
8 mobile shelters my friend, Mr. Marshall, spoke of,  
9 sure they have been used on a small scale but not on  
10 the size and the design, the design that was put  
11 together two or three months ago to demonstrate its  
12 practicality and its usability without field testing.

13 In short, sir, that North  
14 Slope construction schedule is based entirely upon  
15 assumptions, entirely upon untested and untried  
16 techniques devised by someone who evidently has never  
17 built a large pipeline.

18 Mr. Commissioner, <sup>if</sup> /any one  
19 of those items, any one of that five or six dominos  
20 drops over, all go and it will indeed be a miracle if  
21 one doesn't.

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1                   Very rare in human experience is  
2     it that something new works the first time, let alone  
3     five or six new items, all of which must work. If one  
4     does not, sir, the serious consequences follow.

5                   Even aside from the environ-  
6     mental consequences resulting from one winter season,  
7     the improbability of achieving the targets in one  
8     season must lead to doubt about the ability to manage  
9     the whole project because if one branch of it fails,  
10    the Prudhoe Bay lateral, the northern border connection;  
11    one branch, it is all gone because it doesn't work  
12    until it's all in place from end to end and that is the  
13    disastrous consequence which is in prospect.

14                  In my submission, sir, there  
15    is simply not enough hard evidence and Arctic Gas had  
16    the onus of proof. By hard evidence I mean not studies,  
17    not paper plans but field work under working conditions  
18    to demonstrate the fact that these new devices will  
19    work. It must be remembered, sir, that they've been  
20    at this for seven or eight years and one would have  
21    thought that by this time the practical would have  
22    crept in at some place.

23                  In my submission, sir, there is  
24    simply not enough hard evidence upon which to appease  
25    the apprehensions of all but Arctic Gas that a land  
26    use permit across the North Slope should be recommended.  
27    It's in that context, sir, that I referred to the  
28    Foothills' Yukon project. Not that I intended to give  
29    evidence as my friend, Mr. Marshall, so eloquently did,  
30    because it seemed to me that the place for that is the





1 forum chosen for that evidence. The reason I mentioned  
2 it, sir, was because of a procedure approach employed  
3 by the Federal Power Commission which seemed to me to  
4 have the merit of some common sense.

5 That is, that in that agency,  
6 when considering whether or not to reject an application,  
7 one of the basic considerations is whether in doing  
8 so, the result is to deny the supply and in the process  
9 of arriving at that determination, cognizance  
10 is taken of what alternatives there may be. So that  
11 all of the effects of a dismissal can be assessed.

12 It seemed to me that that had  
13 the merit of common sense, that it must be present in  
14 your mind that if there is some adverse recommendation  
15 or ultimately a condition which prevents the use of the  
16 North Slope, what about overland transport of the  
17 Alaska gas, and I felt that it would be proper of you  
18 to recognize that it is not then locked in, that there  
19 are alternatives. It was in that sense and that sense  
20 only when I made mention of Foothills' Yukon.

21 The final point I want to raise,  
22 sir, with respect to the North Slope is what appears  
23 to me to be a sublime irony which appeared as my friend,  
24 Mr. Genest, spoke yesterday because that also is  
25 evidently an area where if necessary to obtain a  
26 right-of-way he would envoke expropriation.

27 It seems to me, sir, remarkable  
28 that anyone could entertain the prospect of employing  
29 the eminent power of the Crown of Canada to obtain a  
30 land grant to transport a resource to a foreign area,



1 particularly for a company three-quarters of whose  
2 dividends will flow to the same foreign area. That is  
3 to say an irony to override local and national  
4 environmental concerns on claims by northern Canadians  
5 of benefits which will accrue almost entirely to  
6 non-residents.

7 Mr. Commissioner, in omitting  
8 to suggest conditions to you, we are being consistent  
9 to the traditional role of the pipeliner who always  
10 hopes, usually in vain, for a clean sheet of paper.  
11 It may be that when our review of the Commission counsel  
12 document is complete, we may find some recommendations  
13 with which we can concur.

14 From what I've been able to  
15 absorb to this date, I don't expect there's going to  
16 be a whole lot but I'm sure there was some which we  
17 will be ready to adopt. With respect, sir, to the  
18 Mackenzie Valley route of Foothills Pipe Lines Limited,  
19 it is my submission that the evidence dealing with  
20 that route is such as to lead to a conclusion that  
21 subject to appropriate guidelines a pipeline can be  
22 built from the delta to the sixtieth parallel with  
23 technology that is known and understood.

24 It is also our submission that  
25 the evidence has demonstrated that the adverse effects  
26 can and will be minimal. My friend, Mr. Marshall,  
27 raised the question of the Foothills' use of helicopters.  
28 We propose to reply to that in our written  
29 responses to Commission counsel's evidence. There is  
30 a question there because we don't believe that it is



1 illegal to use those helicopters. Mr. Marshall and  
2 ourselves had a go-around about this in Ottawa. We  
3 propose to obtain the Minister of Transport Regulations  
4 which we did there and if we are right, we will correct  
5 that in the responses. I believe there is a confusion  
6 over what is and is not permitted by the Minister of  
7 Transport.

8 Mr. Commissioner, that concludes  
9 my submissions to you today. On behalf of my colleagues,  
10 Mr. Hollingworth and Mr. Lutes and all the Foothills'  
11 people who appeared before you, I want wholeheartedly  
12 to adopt the tributes paid to you by Mr. Genest this  
13 morning and perhaps I could add one more that I'm sure  
14 he would not object to; and that is having in mind the  
15 days and the nights and weeks and months and miles and  
16 quantities of paper and numbers of people, a tribute  
17 to your truly remarkable powers of endurance. Thank  
18 you.

19 THE COMMISSIONER: Well, I think  
20 we'll take a break for a cup of coffee.

21 (PROCEEDINGS ADJOURNED FOR A FEW MINUTES)  
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(PROCEEDINGS RESUMED PURSUANT TO ADJOURNMENT)

THE COMMISSIONER: Well,  
let's take our seats, shall we, ladies and gentlemen?

MR. SCOTT: Mr. Commissioner,  
Mr. Templeton is next.

THE COMMISSIONER: Mr.  
Templeton?

MR. TEMPLETON: Mr. Commissioner, I would like to sum up my 6½ years of work by listing all the terms and conditions for government and the pipeline company that I think should be instituted. However, the lawyers tell me I've already used my quota of words in phrasing lengthy questions; there's no time left for what they call argument and I guess I've spent all my arguments in phrasing the questions so I'll only give an argumentative review of a few points.

My argument which is in this blue covered book was circulated to the participants last week and I'll try to follow the summary and add a few comments about some of the items that have come up by the other participants.

My argument is organized into four sections. Section 1 is the recommendations and what must be done by government;

Section 2 are recommendations of what must be done by the applicant, regardless of which applicant it is;

Section 3 are recommendations on environment protection which applies to both government



1 and the applicant.

2 Section 4 is a comparison of my  
3 recommendations with those of Commission counsel.

4 Most of the terms and condi-  
5 tions that I recommend here have already been given  
6 to you either by the Environment Protection Board  
7 or in an environmental code, or also in words, and  
8 an Atlas which I submitted to you in October of this  
9 year.

10 The first section, "Recommen-  
11 dations and what must be done by government". The  
12 terms of reference of this Inquiry do not specifically  
13 ask you to spell out the terms and conditions by govern-  
14 ment. When the Environment Protection Board started  
15 questioning the adequacy of governmental mechanisms to  
16 control a project of this magnitude, a number of people  
17 said that we were being presumptuous to question the  
18 Government of Canada's ability to do its job. There  
19 may be people who expect you, Mr. Commissioner, to  
20 confine yourself to terms and conditions for the  
21 permittee. I sincerely hope you will not do this.  
22 The Government of Canada and the Territorial Governments  
23 are participants in this project if it goes ahead, and  
24 the success or failure of the environmental, social and  
25 regional economic aspects will depend as much on  
26 government as on the permittee.

27 It is comparatively simple  
28 to make a regulation to apply to a pipeline company.  
29 It is much more complex to have a recommendation to  
30 change the bureaucracy accepted by the bureaucracy --



1 particularly when it affects a number of jurisdictions.

2 I think that the biggest  
3 risk of failure as far as achieving environment protec-  
4 tion -- achieving protection of the environment and the  
5 social fabric is whether the government can, and will,  
6 set up the mechanisms and enforce the terms and condi-  
7 tions that you eventually recommend. The recommenda-  
8 tions that apply to government are as important as the  
9 terms and conditions that apply to the permittee.

10 In this regard I was very  
11 pleased to see Commission counsel's final argument  
12 include recommendations for government as well as for  
13 the company, and I hope your report will include them  
14 too.

15 Under the subject, "Land use  
16 plan", probably the most far-reaching recommendation  
17 that the Environment Protection Board made was,  
18 "That the government formulate a land use  
19 plan for the Western Arctic regardless of  
20 the outcome of this project."

21 A land use plan would affect the applicant's routes,  
22 construction methods and costs. It would represent  
23 government's policy for the future by preserving  
24 natural phenomena such as caribou and waterfowl  
25 migrations, saving some land in its natural state for  
26 future generations, and the preservation of that biolo-  
27 gical factory, the Mackenzie Delta. But a very  
28 special significance, it would recognize in written  
29 form that the natives have rights to the land they use.

30 As part of the concept of a





1 land use plan, I would like to discuss Commission  
2 counsel's recommendations on route location. Commission  
3 counsel does not favor either the coastal or the interior  
4 route proposed by CAGPL, rather counsel favors a more  
5 southerly route south of Old Crow. I believe this  
6 route has been referred to in general terms in the  
7 hearings as "the Calef route". I have always thought  
8 that the Calef route was worthy of consideration but  
9 did not recommend it because it has not been studied  
10 in sufficient detail to know what the impacts would be.

11 M r. Scott recommended that  
12 the agency study this route. As much as I agree that  
13 it should have been studied, I am reluctant to see you  
14 recommend that further study be made before a route is  
15 chosen. Such a recommendation might give mischievous  
16 people the opportunity to say, "Berger's recommendations  
17 don't apply to the final route so they should be  
18 disregarded entirely."

19 I am disappointed at CAGPL  
20 for leaving us with a viable alternate route that has  
21 not been studied. But there we are.

22 I can understand Commission  
23 counsel's reluctance to accept the interior route  
24 as a transportation corridor. My recommendation about  
25 this is that one of the terms and conditions of this  
26 Inquiry should be as follows:

27 "A transportation corridor across the Northern  
28 Yukon should not be approved, but a gas pipe-  
29 line could be permitted as a non-conforming  
30 land use on a 120-foot right-of-way."





Commission counsel favored the Fairbanks route along the Alaska Highway instead of either the coastal or interior routes. If one were to consider only the transport of Prudhoe Bay gas, this recommendation could be fairly easily accepted despite the limited amount of information available. But when one considers that Mackenzie Delta gas is available and that government policy certainly seems to be to bring it to Southern Canada, the decision becomes more difficult. In addition to the impacts of each project alone, the timing of the construction of the two pipelines can have both positive and negative environmental and social impacts. Thus it becomes a complex analysis on which I cannot make judgment at this time.

Another item in the context of land use planning, which I presented in October this year, and which does not need repetition here, is I do not recommend the cross-delta route under any circumstances.

I have not provided any recommendations for terms and conditions for this route. I have not commented on Commission counsel's recommendations for this alternate route because I do not think there is enough known about the impacts to recommend the route. Therefore I have not wanted to give it status as a viable alternative.

In summary, the control of the environmental and social impacts of the project depend on the formulation and implementation



1 of a land use plan for the Western Arctic.

2 I think if this Inquiry  
3 can push the Government of Canada into putting a land  
4 use plan into effect, it will be a major achievement.  
5 Having long-term social and environmental effects, it  
6 will represent Canada's plan for the future in the  
7 Western Arctic.

8 Now a few words about the  
9 single agency. The Environment Protection Board  
10 recommended that a single agency administer all  
11 civil laws of government as to the pipeline operations.  
12 I was very pleased that this concept had been accepted  
13 by Commission counsel in final argument. I noticed,  
14 however, a number of recommendations in that document  
15 to set up departmental or inter-departmental committees  
16 which would have some authority that I personally would  
17 regulate -- relegate to the agency. I can understand  
18 the reluctance of existing government agencies to trans-  
19 fer over their authority to an unknown single regulatory  
20 agency without at least representation on a committee  
21 which would tell the agency what to do. The trouble  
22 is that committees are often refuges from the drudgery  
23 of work and the loneliness of thought. They can  
24 also be an escape mechanism in the decision-making  
25 process. My recommendation is that government should  
26 control the project through a single regulatory agency  
27 and not through bureaucratic committees of existing  
28 agencies and departments.

29 I would expect the new agency  
30 to form advisory groups on specialized subjects, such



1 as the one on geotechnical problems recommended by  
2 Mr. Scott. But if the group is set up outside the  
3 agency -- and by that I mean not operating under the  
4 direction of the agency -- it can produce serious  
5 administrative problems. The agency should have a  
6 clear line of authority and responsibility and we  
7 should not give it any excuses for not performing.

8 In my opinion the existing  
9 government agency should second knowledgeable  
10 experienced people to the single agency and let it make  
11 the decisions. It must be able to react as fast as the  
12 pipeline company. With interest charges of perhaps  
13 \$10,000,000 a day facing the pipeline company, it can  
14 be expected that the project will be a war against  
15 time. The agency should be set up as a war effort.





1 But a war effort should not  
2 continue into peace time. I do not think that the  
3 agency should be allowed to continue after the project  
4 is built despite some of the recommendations--some of  
5 the arguments in some of the Commission counsel  
6 recommendations. It should have a clearly defined  
7 self-destruct mechanism built into its terms of  
8 reference.

9 Now, if I could deal with the  
10 subject of the environmental auditor versus the  
11 ombudsman. The Environment Protection Board recommended  
12 an environmental auditor group which would have no  
13 authority but which would report publicly on a regular  
14 basis how the terms and conditions are actually working.  
15 Dr. Andrew Thompson of CARC made the case for an  
16 ombudsman in Volume 196, page 30866, with some  
17 authority--the ombudsman would have some authority in  
18 reporting to parliament.

19 I agree with his reasoning,  
20 particularly because an ombudsman is someone to whom  
21 the natives can express themselves. I think the role  
22 that I previously recommended be filled by an  
23 environmental auditor group should be incorporated  
24 into the role of the ombudsman. This would hopefully  
25 get around some of the problems that beset the Arctic  
26 Institute's efforts to monitor the Alyeska pipeline.

27 I do not agree that because the  
28 efforts in the Alyeska pipeline case was a failure  
29 that all environmental auditor efforts need to be a  
30 failure, but the ombudsman if his terms of reference



1 was to report publicly the successes and failures of  
2 the terms and conditions, that would adequately do the  
3 job. I would hope that the reporting would be on a  
4 frequency of quarterly, rather than semi-annually,  
5 or annually as has been expressed by others.

6 Now, I'd like to turn to Section  
7 2 of my report which is entitled "Recommendations of  
8 what must be done by the Applicant". This deals with  
9 the responsibilities of the applicant. The Environment  
10 Protection Board and I have both dealt with this  
11 before and I will not repeat those terms and conditions  
12 that we recommended here. I would only like to  
13 emphasize one recommendation that sometimes seems to  
14 have been forgotten. This is that there should be a  
15 performance bond which we called up in Item 2.8, page  
16 23 of the Environment Protection Board's code, environ-  
17 mental code, guaranteeing that the permittee will:

- 18 1) carry out obligations given with the permit and  
19 subsequent revisions;  
20 2) cover loss or damage to the environment not covered  
21 by the permit.

22 The amount of the bond recommended is one percent of the  
23 construction cost in the Northwest Territories and  
24 Yukon.

25 This was not \$50,000,000.00 that  
26 was discussed at length here a few months ago. I think  
27 they perhaps slipped a digit.

28 Section 3 of my report are the  
29 recommendations on environment protection. Pages 31  
30 to 44 of my final argument are photocopies of the



1 Environment Protection Board's final report, Volume 2,  
2 "Towards an Environmental Code", with a few minor  
3 changes. The only major addition is on page 37, Item  
4 18.7,

5 "The cost of gravel shall be a minimum of 40¢  
6 per cubic yard for quantity estimates supplied  
7 to this Inquiry and \$1.00 per cubic yard for  
8 additional quantities used".

9 The purpose of this recommendation  
10 is twofold:

- 11 1) to discourage the indiscriminate use of gravel and;
- 12 2) to provide compensation to the owners for con-  
13 sumption of a resource that; in most areas of the  
14 Mackenzie Valley is non-renewable.

15 On page 40, Item 22.14 is the  
16 recommendation:

17 "That chilling of the gas be terminated at the  
18 Willowlake River to prevent drainage interruption  
19 and frost heave problems. Maintaining chilling  
20 to this point is required to prevent extensive  
21 ground subsidence".

22 The Environment Protection Board  
23 originally made this recommendation but since there has  
24 been a considerable amount of evidence since the  
25 EPB terminated, I would like to comment further.

26 I have read the evidence in the  
27 transcripts and the Commission counsel's final argument  
28 on "Frost Heave and Thaw Settlement". The frost heave  
29 problem was first identified by Mr. L. Hurwitz in the  
30 EPB interim report Number 2, June, 1972, Exhibit 138.





1 The EPB interim Report No. 3 of March, 1973, Exhibit  
2 137 on the studies of Mr. Hurwitz and How delineated  
3 areas of frost heave problems. The final report of the  
4 EPB, Volume 4, Chapter 1, by G. T. S. How, Exhibit  
5 135, gave the methodology of the approach for  
6 termination of chilling at the Willowlake River.

7 This recommendation that chilling  
8 be stopped at the Willowlake River was made before we  
9 had any test results from CAGSL on the shut-off pressure  
10 concept of preventing frost heave. Therefore, the fact  
11 that the test equipment was faulty has no affect on  
12 our reasoning.

13 The recommendation is still the  
14 best that I can make. The whole matter of the theory  
15 of shut-off pressure was whether a berm could be built  
16 over the pipe to prevent heaving by frost. It was one  
17 and only one of the remedial measures proposed by  
18 CAGPL. But it did not document the environmental  
19 implications of mining and hauling the material to  
20 make the berm. The drainage surface water through  
21 breaks in the berm--sorry, I think I should read that  
22 again. The drainage of surface water through breaks  
23 in the berm has environmental implications. In  
24 addition, I am not convinced that the small culverts  
25 through the frost wall or bulb, whatever you call it,  
26 will, over the years, conduct the subsurface moisture  
27 through the wall.

28 The argument about the shut-off  
29 pressure by the CAGSL witnesses and the Commission counsel  
30 report discusses the theory but I think you, Mr.





1 Commissioner, need not rule on that argument. The  
2 discussions, in my opinion, have become sidetracked into  
3 another theoretical discussion like the C sub V  
4 that Mr. Genest referred to yesterday, and I'd forgotten  
5 about.

6 It is a discussion of one of the  
7 remedial measures if the pipeline is chilled in a moist,  
8 non-permanent, non-permafrost areas, and seems to have  
9 lost sight of the environmental implications of chilling  
10 or not chilling. More specifically, where the point  
11 at which chilling is to stop.

12 There are environmental  
13 implications if the pipe is chilled in non-permafrost  
14 areas and there are environmental implications if it  
15 is not chilled in the high ice content permafrost  
16 areas. Therefore, I wasn't able to understand the  
17 Commission counsel's recommendation that we should be  
18 conservative. I think we're on a teeter totter in trying  
19 to decide what is the particular point that the chilling  
20 would stop.

21 As Dr. Adam pointed out in  
22 Volume 72, page 10778 to 10780, it then becomes a matter  
23 of weighing high ice content areas versus unfrozen  
24 areas. Since chilling machinery must reasonably be  
25 installed only at compressor stations, the options are  
26 greatly reduced. It should also be borne in mind that  
27 the chilling will extend for more than a hundred miles  
28 downstream from the last chilling point.

29 I recommend that you specify  
30 that chilling should stop for either the CAGPL or the



1 Foothills alternative at the compressor station site  
2 closest to the Willowlake River unless the agency is  
3 presented with new and convincing evidence that another  
4 location would cause less environmental damage. I don't  
5 think it's only a matter of saving the pipeline itself.  
6 It's the saving of the environment.

7 I do not agree with Mr. Genest  
8 that this whole matter can be left to the N. E. B. This  
9 Inquiry has to do with the environmental and social  
10 issues and the presence or absence of the frost bulb  
11 or wall as well as the remedial measures to prevent  
12 frost heave certainly have environmental implications.

13 Before leaving this subject, I  
14 would like to recommend that the CAGPL route not extend  
15 over the Ebutt Hills, but that it follow a course around  
16 the west of them similar to that recommended by Mr.  
17 Zoltai in Volume 101, page 15468. The higher elevations  
18 and steep slope of the Ebutt Hills route just make the  
19 frost heave problems worse.  
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1 comments about the Commission counsel's recommendations.  
2 They are my comments about the Commission counsel's  
3 recommendations. But since this review and report  
4 was made in less than a week, it may be more subjective  
5 than objective, and in addition, time did not permit  
6 me to add to the list those recommendations of mine  
7 that are not in Commission counsel's list. They are,  
8 however, the entire list of my terms and conditions  
9 or my recommendations to you for terms and conditions  
10 are contained in Sections 1, 2, and 3 of my report  
11 plus the Atlas which was submitted in October.

12 Since this is my last presen-  
13 tation perhaps I could preach just one more sermon.  
14 It stems from reading Commission counsel's argument  
15 and then I re-read the Environment Protection Board  
16 Code, and then I re-read my own comments. I'm sure  
17 that none of them, none of the authors of any of these  
18 are consistent as to the depth that they go into  
19 different subjects. Since I would much rather point  
20 out other people's inconsistencies than my own, I  
21 mention that Commission counsel has 101 recommendations  
22 for a contingency plan for oil spills and only one  
23 recommendation for a contingency plan for forest fires.

24 My major point has to do with  
25 the purpose of the terms and conditions. In my opinion  
26 the terms and conditions should be written as per-  
27 formance specifications -- and not as construction  
28 specifications or a project handbook. None of us can  
29 write a project handbook for this project at this time,  
30 nor should we attempt to. That will come later as the



1 detailed construction specifications and the detailed  
2 working out by the agency as the proposals by the  
3 permittee come forth.

4 We should, in my opinion,  
5 state as clearly and precisely as we can the  
6 results or the performance we expect to achieve, not  
7 how to achieve these results or that performance.  
8 Some might argue that all we have to do is give a  
9 performance specification such as,

10 "Construct the project so that it will  
11 protect the environment and social fabric  
12 and improve the regional economy."

13 That's a performance specification. But of course  
14 this is not enough. The other extreme, some might want  
15 to put down everything they know about the project in  
16 the hopes that it will prove useful to the project  
17 managers later on. This, too, would be counter-  
18 productive. When and if the government adopts your  
19 terms and conditions, Mr. Commissioner, these terms  
20 and conditions will then change from recommendations to  
21 regulations and may well prevent productive innovation  
22 by the regulatory agency and/or the permittee later on.

23 So it is a matter of judgment  
24 as to how specific to be in the terms and conditions  
25 without usurping the role of detail designers and  
26 regulators at a later date. As I look back on the  
27 Environment Protection Board's Code and my revisions  
28 to it, and my comments on Commission counsel's recommen-  
29 dations, I see more inconsistencies and I suppose there  
30 are inconsistencies in everyone's. This can be expected



1 because I, too, am more interested in some items than  
2 in others and there's a great big grey area in between  
3 the two extremes.

4 Mr. Commissioner, yesterday  
5 you asked the participants to comment on how much  
6 detail should be included in the terms and conditions.  
7 Perhaps I could demonstrate this performance speci-  
8 fication that I keep talking about by considering  
9 three examples. ON page 120 of my submission under  
10 the heading,

11 "Frost heave and thaw settlement"  
12 in the first column is a very brief description of  
13 Commission counsel's recommendations. In the second  
14 column we have the number of his recommendation and  
15 the page on which it occurs, and in the right-hand  
16 column are my comments about it. I apologize for  
17 the hurried method these were put together and they  
18 may not be too understandable, but if you want to  
19 refer to them --but I did my best in the time I had.

20 As I point out on page 118 ,  
21 a couple of pages previously, I agree to most of the  
22 discussion in the frost heave and thaw settlement  
23 theoretical problem, but I think these are things that  
24 a prudent designer and a regulatory agent would want  
25 to consider , but I do not think that they should  
26 become regulations. I hope that the Berger terms and  
27 conditions will be adopted by government as such, and  
28 I do not think it would be appropriate for you to  
29 for example name Northern Engineering Services staff  
30 to do the work because as much as Mr. Dau might like





1 to see that, I don't really think that's -- and  
2 it's similar to the Calgary test-site. It could well  
3 be that they would want to continue that or work on  
4 it or change it, but I don't really think that's  
5 appropriate.

6 which Another example is on page  
7 77 /discusses Commission counsel's recommendation on  
8 wildlife management and monitoring. This section  
9 and perhaps I'm wrong but it left me with the impression  
10 that this was written by a government department which  
11 has felt deprived of research money and when it got the  
12 chance to say what was needed, it said it. Perhaps  
13 out of context was the other regulatory factors of  
14 this project. I do not think that this project can  
15 cure the inadequacies of government.

16 On the same page, on page 6,  
17 Recommendation No. 7 says that,

18 "Government should form a wildlife co-ordinating  
19 committee with certain duties and responsibilities."  
20 Once again this is probably a good idea but the agency  
21 should administer the laws of this project, in my  
22 opinion. It should appoint its Advisory Committees  
23 and the government departments should second senior  
24 knowledgeable people to the agency so that the agency  
25 can do its job. I do not think that the government  
26 department can reasonably keep part of that authority.  
27 Otherwise if you don't specify the authority and  
28 responsibility, it's very difficult to do a job of  
29 this magnitude under this time frame.

30 On page 78 the list of





1 management studies needed are not, in my opinion,  
2 terms and conditions for this project.

3 (SUBMISSION BY C. TEMPLETON MARKED EXHIBIT 893)  
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1                   On page 148 to 157 commenting  
2 on Commission counsel's recommendation on waste water,  
3 sewage, solid waste, water supplies and intake have,  
4 in my opinion, gone overboard. It seems to me that the  
5 authors of these sections were governmental departments  
6 who pulled a set of recommendations off the shelf.

7                   MR. SCOTT: Well, you're wrong  
8 about that.

9                   MR. TEMPLETON: Perhaps it was  
10 under the table. Some of the recommendations are  
11 surprising to me when it is well known that Inuvik  
12 which is a government organized town dumps its raw  
13 effluent into a swamp. A recent mine in the Arctic  
14 islands organized by the Federal Government dumps its  
15 effluent, including heavy metals, into the bay.

16                   Now, I'm not proposing that this  
17 project should dump raw effluent into the receiving  
18 streams or lakes in this project but I think to keep  
19 the terms and conditions reasonable and acceptable,  
20 there should be a little more care to put it in context so  
21 that we will not lose sight of the principal recommendations  
22 that's come out of the Inquiry.

23                   I couldn't help but think that  
24 the authors who wrote those strong recommendations and  
25 that they are not only limited to that one section,  
26 but if they felt so strongly about how things should  
27 be done, I'm rather surprised that they didn't come  
28 forward as citizens and made their recommendations to  
29 this Inquiry. I think that you, Mr. Commissioner, would  
30 have extended them the same courtesy as you extended me.



1 I'm somewhat disquieted that so  
2 many government department recommendations suddenly  
3 appeared in the Commission counsel's final argument,  
4 rather than earlier. I quite understand the problem  
5 and I'm certainly not criticizing Dr. Fyles group in  
6 any way. Their's was an impossible task. To get  
7 advisers from government departments without getting  
8 departmental biases, hopes and aspirations and produce  
9 almost instantaneous terms and conditions is a very  
10 difficult task.

11 I think they did an excellent  
12 job but I do think that the biases, hopes and  
13 aspirations should be taken out of the terms and  
14 conditions that you recommend.

15 I won't go through all of the  
16 rest of the Commission counsel's terms and conditions.  
17 You'll note that some of them I agree with. In fact,  
18 a great many of them I agree with. I don't think it  
19 needs to be belaboured until perhaps you are going through  
20 writing your own and want to see what was said about  
21 each individual one.

22 In closing, I would like to thank  
23 you, Mr. Commissioner, for your forbearance at my  
24 fumbling questions and I certainly appreciated the  
25 experience of being a participant. I think there has  
26 been some real innovation in this Inquiry. I have  
27 watched with a great deal of interest the unfolding of  
28 your methodology.

29 1) taking your family to informally meet the public  
30 in the villages along the route and set up the





1 discussions with the natives.

- 2 2) your acceptance of the natives' timeframe for  
3 meetings and discussions, a concession that most  
4 of us have not been willing to make.
- 5 3) your insistence that everyone be heard. Your  
6 words in the transcript at the Aklavik hearings  
7 are words I well remember. They contain a  
8 quotation which will surely be read at future  
9 hearings. That passage had to do with bureaucratic  
10 restrictions on the right of people to speak out.  
11 On the same subject, you delivered a short subject  
12 to activists in Winnipeg. At that time, you  
13 insisted on the right of land developers to speak  
14 without harassment even though they seem to be  
15 only interested in obtaining cheap gas.
- 16 4) your rigidity in the concept that it would be a  
17 full hearing. Despite comments by three cabinet  
18 ministers in the early stages, I think that everyone  
19 would agree that it has been a full hearing.
- 20 5) your contribution and that of the Department of  
21 Indian Affairs and Northern Development to give  
22 citizen organizations, including three native  
23 organizations the status of participant and the  
24 money to participate is surely a milestone in the  
25 concept of public participation. Everybody talks  
26 about public participation but it's not usual  
27 to do anything about it.

28 This Inquiry may not go down in  
29 history for its solution to the frost heave problems or  
30 its quantification of the synergistic effect of the



1 biota but it will go down in history for its methods  
2 of achieving public participation and I hope environment  
3 protection.

4 In closing, I would like to  
5 comment on the applicant's role of the Inquiry. The  
6 usual casual comment that you hear from industry and  
7 government people is "Look what a minority government  
8 got us into, that Berger Inquiry cost us tens of millions  
9 of dollars. We'll never submit our project to that  
10 sort of waste". My comment is: "You wanna bet?" I  
11 think, Mr. Commissioner, you have shown how to do it.  
12 It is left for future inquiries to optimize the process.

13 I think the applicants have  
14 demonstrated a good corporate citizenship. It is usual  
15 to reserve the topmost rung of the ladder of bad guys  
16 for a consortium of international oil companies. In  
17 this case, they turned out to be sincerely interested  
18 in achieving the goal of this Inquiry.

19 They even funded the Environment  
20 Protection Board for five and a half years, while often,  
21 and perhaps I should say usually disagreeing with it.  
22 Though I'm sure they would cheerfully liked to have  
23 chopped off my head, they never did, I don't think.

24 At the beginning of the Inquiry,  
25 Mr. Commissioner, you said:

26 "I have been guided by the conviction that this  
27 Inquiry must be fair and it must be complete. We  
28 have to do it right".

29 I believe that you have done  
30 that and I thank you.



1 THE COMMISSIONER: Thank you,  
2 Mr. Templeton.

3 MR. TEMPLETON: That's all I  
4 have, Mr. Scott.

5 MR. SCOTT: Mr. Commissioner,  
6 the next submission will be made by the Mental Health  
7 Association of the Northwest Territories, Mrs.  
8 MacQuarrie.

9 THE COMMISSIONER: I wonder if  
10 we--Mrs. MacQuarrie, could we take two or three minutes  
11 while you get your papers arranged and we'll just stretch  
12 our legs for a moment.

13 (PROCEEDINGS ADJOURNED FOR A FEW MINUTES)

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1 (PROCEEDINGS RESUMED PURSUANT TO ADJOURNMENT)

2 MR. SCOTT: Mrs. MacQuarrie,  
3 any time you're ready.

4 MRS. MACQUARRIE: Thank you.

5 Mr. Commissioner, we began  
6 our summary with a reiteration of the definition of  
7 "Mental Health". Mental health is more than simply  
8 the absence of mental illness. Mental health refers  
9 to a quality of life, one which is salutary and fulfill-  
10 ing and one in which the stresses and pressures which  
11 can lead to the occurrence of mental illness are  
12 generally within the control of the individual and  
13 the community.

14 Some general comments. The  
15 construction of the Mackenzie Valley Pipeline has the  
16 potential to provide several beneficial developments  
17 for the residents of the Northwest Territories. It  
18 also has the potential to seriously erode many of the  
19 conditions which lead to good mental health. The  
20 positive effects of this development are those which  
21 will improve the capacity of individuals to exercise  
22 choice over their lives and to significantly influence  
23 the environment in which they live.

24 Conversely, the negative  
25 effects on mental health will occur to the extent that  
26 the pipeline reduces this choice and thrusts unwanted  
27 development on our residents.

28 The positive effects of pipeline  
29 development include some of the following: (These are  
30 potential benefits).





1 . An improved economic climate  
2 . Improved services in many different sectors  
3 including recreation, housing, increased social and  
4 health services, and the provision of mental health  
5 services and facilities which are at the present time  
6 lacking.

7 . Improved transportation and communication  
8 facilities

9 . The availability of energy at a more reasonable  
10 price

11 . The opportunity for increased economic and  
12 political control on the part of the residents.

13 The negative effects of  
14 pipeline development. It is truly unfortunate that the  
15 residents of the Northwest Territories have not had  
16 the choice of determining by referendum whether a pipe-  
17 line should be built. Several disbenefits which are  
18 likely to occur include:

19 . A severe housing shortage

20 . Additional inflation within the Northwest  
21 Territories

22 . Increased problems of alcohol abuse resulting  
23 from increases in the per capita income and disloca-  
24 tion of people from their family or home community

25 . An escalation in social problems

26 . Increased in the rate of family breakdown,  
27 juvenile crime, child neglect, suicide, deaths due  
28 to violence

29 . Increases in racial tension

30 . Increases in the incidences of venereal disease,



1 other communicable diseases and industrial accidents  
2 as well as short-run transportation service and supply  
3 difficulties.

4 The Alaska experience. Some  
5 factors which made the planning for pipeline contingencies  
6 in Alaska extremely difficult, problems arose because  
7 the privacy of negotiations between the pipeline  
8 companies in the State , the States' apparent reluctance  
9 to plan for negative social impact, the contradictory  
10 nature of manpower projections, timetables and other  
11 baseline data, the lack of information regarding the  
12 types of social and medical services which would be  
13 provided directly by the contractor, and how much  
14 reliance should be placed on the public sector.

15 Several phenomena observed  
16 in Alaska were:

- 17 . Disproportionate high increases in crime, divorce,  
18 child abuse, and neglect
- 19 . Mental health casualties
- 20 . Auto traffic and juvenile arrests
- 21 . Severe housing crises resulting in outrageous  
22 sale and rental prices
- 23 . Increased average income
- 24 . Employment for many marginally employed and some  
25 chronically unemployed
- 26 . Overcrowding of schools
- 27 . Increased opportunities for youth
- 28 . Increased demands on Court and penal systems
- 29 . Problems of fixed income persons with escalating  
30 costs of living



- 1 . Inability to conduct routine businesses
- 2 . Crowded recreational facilities in areas
- 3 . Reduced demand for service from some public
- 4 agencies and increased demands from others resulting in
- 5 an imbalance of personnel in public agencies
- 6 . Increases in construction and business and the
- 7 dependence upon legislative appropriation resulted
- 8 in belated program implementation.

9                               The recommendations of the  
 10 Canadian Mental Health Association follow. We are  
 11 obliged to speak to a mental health problem which is  
 12 attendant to this Inquiry. In spite of your efforts,  
 13 we believe that excessive expectations have become  
 14 attached to the Inquiry and that considerable misunder-  
 15 standing still exists about the terms of reference  
 16 under which the INquiry was to proceed.

17                              A great many people still  
 18 believe that the Inquiry will have influence beyond  
 19 setting limits and conditions for pipeline construction.  
 20 We have serious concerns about this process, particularly  
 21 if it happens that some of your recommendations are  
 22 disregarded. We hope and trust that many people who  
 23 have come forward to address the Commission are not  
 24 put in the position of discovering that that which they  
 25 believe to be influence was in reality only illusion.

26                              It may be appropriate to  
 27 insert the following here because of some of yesterday's  
 28 remarks. Rapid technological advances, commercial and  
 29 industrial development impose stressful change on all  
 30 people. Unfortunately, adjustments to inevitable change





1 are sometimes complicated and aggrieved when people  
2 are encouraged to view the process as essentially a  
3 conflict between natives and whites.

4 A quotation from Volume 176,  
5 of the transcript.

6 "When western civilization impinges upon an  
7 aboriginal society, and it's something we have  
8 all seen to occur, it is natural and virtually  
9 inevitable that it may be accompanied by acts  
10 of individual injustice. But it is a historical  
11 process rather than something that can be seen  
12 as deliberate or malevolent in that sense."

13 The Canadian Mental Health  
14 Association first urges you to recommend the settlement  
15 of land claims prior to the start of construction on  
16 the Mackenzie Valley Pipeline. The land claims are  
17 central to the aspirations of the native people of the  
18 Northwest Territories and the attainment of an equitable  
19 settlement is indispensable to the good mental health  
20 of all Territorial residents

21 The Association is of the  
22 opinion that the existing timetable for the commencement  
23 of pipeline construction is inappropriate and further-  
24 more, that the period of time allotted for construction  
25 is entirely too short to allow people to accommodate  
26 themselves to the speed of change that will take place.  
27 Our position is that if the present timetable is  
28 accepted as given, it would be a lesser evil to have  
29 the entire operation conducted in complete isolation  
30 of the people and the communities of the Territories



1 than to experience the impact that it would bring.  
2 Figuratively speaking, the best condition in this  
3 eventuality would be the construction of a fence around  
4 the entire operation. We recommend instead a moratorium  
5 of two years to be set aside between the date of  
6 approval to build and the actual start of the clearing  
7 and staging operation preparatory to construction.

8 During this moratorium  
9 government and the people would have the opportunity  
10 to seriously prepare for the development and to under-  
11 take various preventative programs.

12 We further recommend that  
13 the construction phase be extended from its present  
14 timetable to a minimum period of five years. It is  
15 our belief that a great deal of the destructive impact  
16 can be lessened by adopting a timetable which allows  
17 for orderly less rapid development.

18 A number of additional measures  
19 will be required of government to preserve and promote  
20 the mental health of Territorial residents. We urge  
21 you to recommend that Health and Welfare Canada  
22 transfer its responsibility for all health services  
23 to the Government of the Northwest Territories.

24 Bringing authority and  
25 responsibility to the Territories is vital to the  
26 provision of an effective and responsive physical and  
27 mental health program. It is understood that special  
28 consideration and attention must be given to native  
29 groups who wish to negotiate separately with the  
30 Federal Government because of their previous agreement



1 under the medicine chest clause.

2 Clear undebatable lines of  
3 authority for all phases of construction must be  
4 established including regulatory responsibility and  
5 enforcement. As a general principle, mechanisms should  
6 be established to allow local communities the decision-  
7 making power about at least health and social programs.

8 Community mental health  
9 legislation similar to the State of Alaska should be  
10 developed and passed, creating a co-ordinating body  
11 of all social and health operational supervisors  
12 empowered to temporarily shift or reallocate personnel,  
13 equipment or funds in the event of program imbalance;  
14 create through legislative appropriation social and  
15 health impact funds to be distributed through application  
16 by special representative council chosen by the  
17 electorate consisting of both providers and consumers  
18 from pipeline corridor communities.

19 We further recommend the  
20 establishment of an information gathering system  
21 regarding health and social services, casualty data,  
22 communities' social parameter in divorce rate,  
23 suicide, juvenile arrests, school dropout rate, etc.  
24 Every effort must be expended to assist government,  
25 local communities and oil companies to engage in  
26 collaborative planning dialogue. Establish an  
27 interim funding mechanism to enable the immediate  
28 training of a cadre of indigenous mental health  
29 paraprofessionals.

30 The shortfall mental health





1 services and facilities must be addressed immediately  
2 and a residual capacity must be included to provide  
3 for the additional demands created by development.

4 The planning and creation  
5 of the facilities and services would take all of  
6 the time which the moratorium would provide.

7 We recommend that the Council  
8 of the Northwest Territories put in place a community  
9 mental health ordinance modelled on that which is  
10 in force in Alaska. This legislation should create a  
11 separate division of mental health services within the  
12 Territorial Government to ensure that a continued and  
13 high priority is placed in the mental health area.  
14 The legislation which we advocate would vest the  
15 responsibility and authority for the development of  
16 mental health services in the communities. The legisla-  
17 tion would provide for liberal funding to enable  
18 community groups and organizations to design and  
19 operate broadly based adult education activities,  
20 preventative and remedial health services and so forth.

21 (SUBMISSION BY MRS. MACQUARRIE MARKED EXHIBIT 894)

22 (NORTH OF 60, MVPI SUMMARIES OF PROCEEDINGS  
23 MARKED EXHIBIT 895)





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1 on fixed incomes must be protected by government. We  
2 recommend the creation of an indexed guaranteed income  
3 for persons on fixed incomes

4 Governments must provide  
5 additional money to organizations delivering essential  
6 services to ensure that they're able to keep salaries  
7 competitive with hydrocarbon jobs.

8 In addition to these recommendations  
9 for government, we recommend that you consider the  
10 following terms for the companies and their immediate  
11 contractors who will be participating in the development.  
12 The companies must consult with the communities before  
13 final decisions are made concerning the siting of camps  
14 and staging areas. Community councils must have the  
15 right to specify whether and under what conditions  
16 camp personnel may visit particular communities.

17 The companies must make  
18 provisions for screening out undesirable southern  
19 employees and persons who might have difficulty adapting  
20 to the northern working environment. In this regard,  
21 the psychological and medical testing used for DEW line  
22 personnel might be a model for application. Southern  
23 hires should be provided with an orientation program  
24 to ensure that they have a sensitivity to the way of  
25 life in the Northwest Territories prior to taking  
26 employment.

27 Local hires must be given  
28 preference in the construction phase jobs as well  
29 where skills acquired might be transferable to the  
30 operating phase. The Canadian Mental Health Association



1 wholeheartedly supports Commission counsel's  
2 recommendation regarding the northern manpower delivery  
3 system but the difficulties of another bureaucracy  
4 are left to you to sort out.

5 An obligation must be placed  
6 on the companies to blue ticket southern employees who  
7 leave their employment or are fired. The companies  
8 should provide an orientation program for locally  
9 hired people to ensure they are aware of the working  
10 and living conditions they will face in pipeline  
11 camps.

12 Rest and recreation periods  
13 must involve the mandatory repatriation of the worker  
14 to his point of hire, whether that be within or outside  
15 the Northwest Territories. In summary, sir, these  
16 are the recommendations of particular interest and  
17 concern to our organization. But we do not for a  
18 moment believe that they alone will prevent disruption.  
19 If enacted, they do have the potential to alleviate  
20 some of the foreseeable problems.

21 Our final concern is that the  
22 terms and conditions which are established, whatever  
23 they may be, must be administered and enforced if they  
24 are to be effective. The Association believes that  
25 you should consider recommending the creation of some  
26 authority, person or persons or perhaps an agency of  
27 Parliament, which would have the expressed purpose  
28 of ensuring that all parties honour their parts of any  
29 agreements which are made.

30 This agency would have a well-







1 defined mandate and wide ranging powers, including the  
2 capability of halting construction should it be  
3 necessary.

4 On behalf of the Mental Health  
5 Association of the Northwest Territories, I'd like to  
6 thank you for the opportunity to express our views and  
7 hope that you have found something of value in hearing  
8 our submission.

9 THE COMMISSIONER: Thank you,  
10 Mrs. MacQuarrie.

11 MRS. MACQUARRIE: If I may be  
12 allowed a few comments, Mr. Commissioner. First of  
13 all, thank you for your great patience and kindness.  
14 Before I direct some very brief comments to my learned  
15 colleagues, I would like to state that we realize that  
16 the eyes of southern Canada and indeed the rest of the  
17 world will continue to look to Canada's north to fill  
18 their continuing need for natural resources.

19 However, we trust that every  
20 measure possible will be applied to safeguard and  
21 protect the most vital, valuable, non-renewable resource  
22 of all, the people. Now, in directing these brief  
23 comments then to my friends I submit that in spite of the  
24 air of aloofness, expertise and intimidation, I was lead  
25 to believe surrounded all members of the legal profession.  
26 To me, you have all been extremely supportive, kind,  
27 courteous, patient, and even knowledgeable. Thank you,  
28 very much.

29 MR. SCOTT: I think thank you,  
30 Mrs. MacQuarrie. Mr. Commissioner, the submissions that



1 we'll begin with tomorrow are from COPE, Canadian  
2 Arctic Resources Committee and the Council of  
3 Municipalities. Before adjourning, I'd like to file  
4 as an exhibit, if I could, the next two volumes; that  
5 is Volume 2 and 3 of the Pipeline Inquiry's Summary of  
6 Proceedings that the department has been preparing and  
7 I should tell you that <sup>a</sup>volume on the community hearings  
8 is at press and is expected to be available shortly.  
9 There will be a volume on the phase four evidence and  
10 horror of horrors, there will be a volume on the  
11 enforcement phase and the argument.

12 I will attempt to make these  
13 available to the participants when they're at hand.  
14 So, could I ask that Volume 2 and 3 be the next exhibit,  
15 and if that's permissible, could we adjourn until nine  
16 o'clock tomorrow morning.

17 THE COMMISSIONER: Nine o'clock.  
18 All right, nine o'clock.

19 (PROCEEDINGS ADJOURNED TO NOVEMBER 17, 1976)  
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Vol. 201

AUTHOR

Mackenzie Valley pipeline inquiry:

TITLE

November 16, 1976

DATE

BORROWER'S NAME

*Newton*

*Dave*















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